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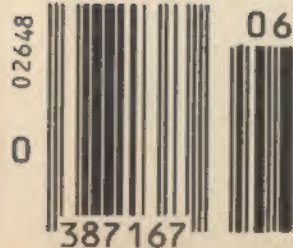
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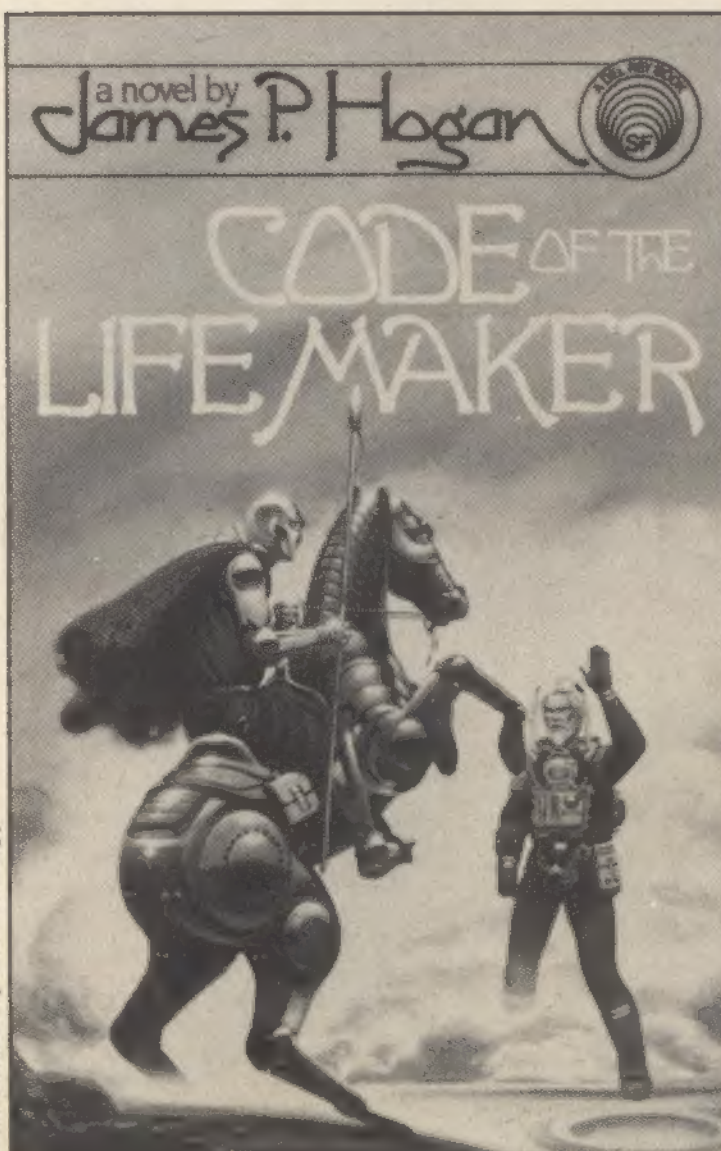
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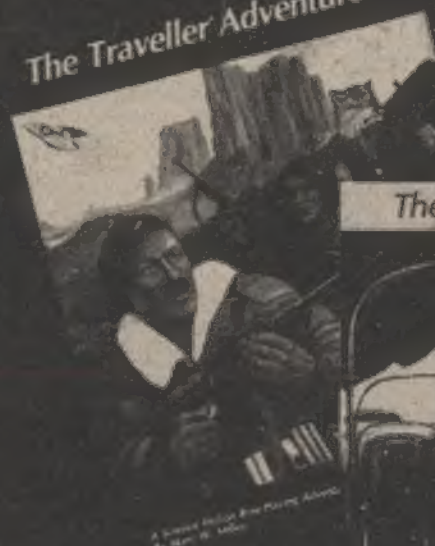


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# ASIMOV<sup>ISAC</sup>

## SCIENCE FICTION

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June 1984

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# EDITORIAL

## RELIGION AND SCIENCE FICTION



by Isaac Asimov

In the November, 1983 issue of *Asimov's*, the cover story was "The Gospel According to Gamaliel Crucis" by that excellent writer, Michael Bishop. It dealt with a sensitive subject—the coming of a savior, or, in effect, the second coming of Christ.

What makes it even more effective as a science fiction story is that the savior is an extra-terrestrial, and not a particularly attractive one to our human eyes since she (!) is a giant mantis. This is entirely legitimate, it seems to me, since if there is other life in the Universe, especially intelligent life, one would expect that a truly Universal God would be as concerned for them as for us, and would totally disregard physical shape since it is only the "soul," that inner intellectual and moral identity, that counts.

What is more, Bishop decided to make the story more powerful by casting it into a Biblical shape, dividing it into chapters and verses and making use of

a touch of suitable Biblical wording.

The result was a *tour de force* which we obviously considered quite successful, or we would not have published it. Still we were prepared for the fact that some readers might feel uneasy with, or even offended by, the subject matter and/or style.

One letter was quite angry, indeed. The writer was "strongly displeased" and considered it "a burlesque of the scriptures" and, finding no other value to the story, considered it to have been written and published only for the sake of the burlesque.

This can be argued with, of course, but never entirely settled. If a reader sees in it only burlesque, he or she can scarcely be argued out of it. There will always be differences of opinion, often based upon emotion rather than reason, with regard to the value of any work of art.

But there is something more general here. There is the matter of how science fiction ought to deal with religion, especially



our religion. (Few people worry very much about how some other religion is handled, since only our own is the true one.)

No one wants to offend people unnecessarily, and religion is a touchy subject, as we all know. In that case, might it not be best simply to avoid religious angles altogether in writing science fiction? As our angry correspondent says, "I suggest . . . that offending any substantial religious group is not the way to win friends or sell magazines."

Yes, we know that, and since we *do* want to win friends and sell magazines, we would not knowingly go out of our way to embarrass and humiliate even non-substantial groups of our readers, just for the fun of it.

But we are also editing a serious science fiction magazine that, we earnestly hope, includes stories of literary value, and it is the very essence of literature that it consider the great ideas and concerns of human history. Surely that complex of ideas that goes under the head of "religion" is one of the most central and essential, and it would be rather a shame to have it declared out of bounds. In fact, for a magazine to self-censor itself out of discussing religion would be to bow to those forces that don't really believe in our constitutional guarantee of freedom of speech and press. If we were to do so,

we would be, in a very deep sense, un-American.

Besides, if we were to try to avoid this very touchy subject where do we stop? I tend to ignore religion in my own stories altogether, except when I absolutely have to have it. Well, I absolutely had to have it in some of my early Foundation stories and in "Nightfall," and so I made use of it. And, whenever I bring in a religious motif, that religion is bound to seem vaguely Christian because that is the only religion I know anything about, even though it is not mine. An unsympathetic reader might think I am "burlesquing" Christianity, but I am not.

Then, too, it is impossible to write science fiction and *really* ignore religion. What if we find intelligent beings on other worlds. Do *they* have a religion? Is our God universal, and is he/she/it their God as well? What do we do about it? What do they do about it?

This point is almost never taken up but, since it would certainly arise if such beings were discovered in actual fact, science fiction loses touch with reality in taking the easy way out and pretending religion doesn't exist.

Or, consider time-travel. I don't know how many stories have been written about people going back in time to keep Lincoln from being assassinated,



but how about people going back in time to keep Jesus from being crucified? Surely that greater feat would occur to someone in actual fact, if time travel were possible.

Think of the changes that could be rung on such a theme. If Jesus were rescued while on his way to the site of crucifixion, and if the rescue were made by modern technology—a helicopter or something more advanced, while the Roman soldiers were held off by rifle-fire at the very least—would it not seem to the people of the time that supernatural forces were rescuing Jesus? Would it not seem that angels were coming to the aid of a true savior? Would it not establish Christianity as the true religion at once?

Or would it? Clearly, it was God's divine purpose (assuming the God of the Bible exists) to have the crucifixion take place in order that Jesus serve as a divine atonement for Adam's sin. Would the subversion of this plan be allowed to take place?

It's a nice dilemma, and it is within the province of legitimate science fiction. Yet who has ever considered writing such a story, even though it would give us a chance to deal with what many consider the central event of history? The story would be an extremely difficult one to write, and I wouldn't feel

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up to it myself, but I think it is primarily self-censorship that keeps it from being written.

For that matter, what if we went back in time and found that the Biblical Jesus never existed?

The mere existence of time-travel makes all these speculations irresistible, so is it possible that very religious people might object to time-travel themes, and call them blasphemous, simply because of the possibilities they give rise to?

The correspondent says in his letter, "Dr. Asimov, I know that you are an atheist—" and there may be the implication that because of this I am insensitive to the feelings of religionists, or perhaps even anxious to make them seem ridiculous.

As a matter of fact, I have frequently, in my writings, made it clear that I have never encountered any convincing evidence of the existence of the Biblical God, and that I am incapable of accepting that existence on faith alone. That makes me an atheist, but, although this may surprise some Americans, the Constitution safeguards my right to be one and to proclaim myself one.

Nevertheless, although I am an atheist, I am not a proselytizing one; I am not a missionary; I do not treat atheism as a kind of true faith that I must force on everyone. After all, I

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# WEST OF EDEN

BY HARRY HARRISON

On sale July 15, 1984  
A BANTAM  
HARDCOVER



have published more than almost anyone, about 20,000,000 words so far, and I have frequently discussed controversial problems. You are free to go through my writings and search for any sign that I ridicule religion as such. I have opposed those people who attack legiti-



mate scientific findings (evolution, as an example) in the name of religion, and who do so without evidence, or (worse yet) with distorted and false evidence. I don't consider them true religionists, however, and I am careful to point out that they disgrace religion, and are a greater danger to honest religion than to science.

And suppose I weren't an atheist. My parents were Jewish and I might have been brought up an Orthodox Jew, or become one of my own volition. Might it then be argued that I would naturally favor any story burlesquing Christianity?

Or suppose I were a Methodist; would I therefore look for stories that burlesqued Judaism, or Catholicism—or atheism?

If I were in the mood to run this magazine in such a way as to offend "any substantial religious group" I wouldn't have to be an atheist. I could do it if I were anything at all, provided only that I were a bigot, or an idiot, or both.

In actual fact, I am neither and again, I offer my collected

writings as evidence. As for Shawna, she doesn't have a similar body of written works to cite but, if I may serve as character witness, I can tell you right now she is certainly not a bigot, and a hundred times certainly not an idiot.

Needless to say, I am sorry that our correspondent was upset by "The Gospel According to Gamaliel Crucis." If we lived in an ideal world, we would never publish any story that upset *anyone*. In this case, though, we had to choose. On the one hand, we had a remarkable story that considered, quite fearlessly, an important idea, and we felt that most readers would recognize this point—if not at once then upon mature consideration. On the other hand, we had a story that might offend some of our readers.

We made the choice. We put quality and importance ahead of the chance of some offence. We hope that our angry correspondent will consider the matter again and see that the story is far more than a burlesque. He might even give Bishop points for skill and courage. ●





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# LETTERS

---

Dear Dr. Asimov:

I eagerly read every issue of your magazine. However, I gave up my August issue before reading it, for the greater cause of spreading your word(s) to the far reaches of the Earth.

On a recent safari through Kenya, our bus stopped at a Masai tribal village. The Masai is the fiercest tribe in all of Kenya and noted for resisting any kinds of modernization. They tend their cattle, live in cow-dung huts, and subsist on a yogurt-mixture of cow-blood and milk in much the same way their ancestors did thousands of years ago.

The Masai children do go to school to learn to read and write the basics of both Swahili, the national language, and English. When safari buses roll in to visit the villagers, the children plead with the tourists to give up any pens, pencils, maps, or books they might have with them. All I had with me was my most valued possession—my August issue of *Asimov's*. But I gave it up to a half-clad, barefooted Masai boy whose charming smile spread from ear to ear. I must admit that I felt a certain irony in giving a magazine of the future to this representative of our past. I often wonder about the boy's reaction to the stories and articles in that issue.

Alas, I am minus one August is-

sue, but I feel it went to a most worthy recipient. Who knows, you could soon have a new subscriber from Kenya.

Sincerely,

Mary Spalding  
Seymour, WI

*We might as well fantasize. Imagine the young Masai finding a new world, growing interested in science, traveling to Nairobi in order to get instruction, learning things of which he would otherwise have remained forever ignorant, remembering always the woman who had started it all, and never knowing how to find her again in order to thank her.*

—Isaac Asimov

Dear Ms. McCarthy,

When I read Robert K. Cooke's letter in the November 1983 issue, the rest of the magazine had to wait.

For years the "Letters" section has been most entertaining and educational. Mr. Cooke prompted a reply of my own. I quote: "Well, if nobody else likes the Profiles, you have my permission to cut the number of them down (how about one every few issues?)." For me, Profiles are cold, yet—I find that some refuse to be passed over. More often than not, they are too long



(Viewpoint falls into this category). Please return them once in a while.

Sex. Well—my 7-year-old reads your magazine and is “under the mental age of 18.” I myself am tolerant of moderate sex and violence. I collect *Isaac Asimov's S.F. Magazine* to read and loan, and have to be critical of anything I keep. Any *exceptional* stories you do find that have sex and violence, I will leave to your good judgement.

I benefit from the Gaming section in that I am not “interested enough in role-playing games” to subscribe to yet another magazine. I enjoy reading this as it helps me pick and choose among so many. The best columns are those that restrict themselves to 1 or 2 pages (a subtle hint for more and more stories).

Sue Werle put in a point for me! I love fantasy and have quite a few sprinkled amongst my extensive S.F. library.

The “On Books” pages have helped me select those that spark my interest enough to add to the aforementioned collection (this includes the Foundation series, which I do not lend!). I do not enjoy reading “On Books,” as they are a bit dry, but front or back, they will be read.

As of this date I have no intention of cancelling *my* subscription. The editing is superb and rarely do I find a dull issue. I start at the front and work my way through with leisure, having only one request: Please keep all business reply cards either before or after those gems of stories. An uninterrupted section of pure reading pleasure is a treat.

Hats off for all those hard-working authors. Keep them coming! For those that “make it,” my sincere thanks. Thank you too to Dr. Asimov. You have given me a rare insight into the literary world with your Editorial.

To Michael Devich: I wonder what you've been reading. There's a lot of trash going around, but you won't see this Science Fiction magazine in any bin around here.

Kathrine G. Johnson  
5808 Amethyst St.  
Alta Loma, Ca. 91701

*Heavens, a kind word for everything. How pleasant. What I agree with most is that “the editing is superb.” Shawna is a jewel and I'm working very hard to get her to stop smoking so that she will live forever and stay editor for that long.*

—Isaac Asimov

To the Editors:

I've been reading science fiction since the tender age of eight, when my father introduced me to Edgar Rice Burroughs's Martian Series. It was the beginning of what was to become a life-long love affair, and despite my very time-consuming career as a professional violinist, I've somehow always managed to find time to read, and even occasionally to write, science fiction.

I have been reading *IASfm* since 1978, when the mother of a friend gave me some back issues of the magazine. I was delighted then, and have continued to be delighted, with the consistently high quality of your publication. I also enjoy the wide variety of sub-genres within SF which you publish; I agree with



Lazarus Long, that specialization is for insects. I first signaled my enjoyment of *IAsfm* in 1980, by buying a subscription, and I wanted to do so again now, in a more overt manner.

I would also like to offer my opinions concerning a few aspects of your magazine. Nearly all the changes that have taken place since I began to read *IAsfm*—cover format, address labels, departments, etc.—have been distinct improvements. I was originally in favor of the bordered cover-illustration, but have since decided that I prefer the present borderless illustrations. The present logo is much more attractive and appealing than the old one, particularly so since you removed Dr. Asimov's picture from the logo (no offense, sir).

The changes inside have been good ones, as well, with one glaring exception—the table of contents. Listing the contents by category does not, in my opinion, serve any useful purpose, and in fact forces you, the editors, to thrust a particular piece into a category—and while that category may in fact be appropriate, I disagree with the principle. (I always frown for a moment, for example, to see Martin Gardner's brain-teasers listed under "short stories.") In addition, I find it very disquieting not to have the table of contents in numerical page-order. Someone steeped in science fiction might well look at such a table of contents and wonder if he were experiencing temporal discontinuity—that it actually *is* in page-order, but that the reader is slipping back and forth in time as he tries to read. This can be a most disconcerting feeling!

Once again, my compliments to the entire staff of *IAsfm* for producing such a high-quality product.

David K. Wilson  
Temple Hills, MD

*Division by category on the contents page is a time-honored tradition in science fiction magazines. It led to the assignment of Hugos and Nebulas in each of those categories and if we omit the categorization, as we did in the earlier years, there are complaints by readers who don't know how to vote for a favorite story.*

—Isaac Asimov

To the Editors,

I have been reading *IAsfm* since Vol. 1 No. 1 but I have never been compelled to write until now. Let me say that I enjoy the magazine very much though I am particularly fond of the Pshrinks Anonymous stories, the Lessons in Unhistory, and the crossword puzzles (even though I have never managed to complete one).

The main reason I have decided to write is the latest story by Tanith Lee, "Chand Veda." The story began slowly and I nearly gave up on it, but soon found myself thoroughly engaged. I only wish she had stopped three paragraphs before she did. The final three paragraphs were superfluous and ultimately detracted from the power of the story.

My sincere thanks for 6½ years of enjoyable reading—may your success continue!

Ritch Calvin  
Ottawa, OH



FRONT  
AND CENTAUR  
FOR AN ANNOUCEMENT...



FROM BAEN BOOKS



*No, no, it must be clear that they are not objectively beautiful. They are merely beautiful to each other, which is all that counts, and all that insures happiness—and that is the lesson of those last three paragraphs.*

—Isaac Asimov

Dear Ones,

Why the sudden uproar about sex and/or violence in SF? Cannot even a primarily adult, generally intellectual magazine escape the cold scissors of silly censors?

All that I (and, I hope, most other readers) require is that the stories be judged on the basis of *quality*, and that includes any sexual and/or violent scenes, as well. I'd rather read a wonderful, well-crafted tale which happens to be violent — *Broken Wings* (Nov. '83) comes to mind—than something which is "clean" and "savory" but shallow and badly-written. That's why I avoid TV! I'm not advocating undue use of R-rated writing, but I certainly don't want to be shielded from it!

Thankfully, *IAsfm* has thus far maintained such high quality that my only real complaints are the following tired ones:

1—Could you *invert* the puzzle answers, that an unwary glance need not reveal all?

2—Yes, I too miss the Good Doctor's picture in the "O."

Dorothy Hickson,  
• Mt. Airy, MD

*Say, inverting the puzzle answer seems like a good idea to me. Is it possible, Shawna, or would there be a problem with the Noble Printer?*

—As to my picture, you can always buy my hard cover books (lots of them). They almost always have nice glossy, handsome photos of my lovable face.

—Isaac Asimov

*Well, I suppose it's physically possible, but the confusion that would arise at the printer's seems rather a high price to pay. Perhaps a hand, placed firmly over the offending section, would be the easiest solution all around.*

—Shawna McCarthy

Dear Dr. A.:

I am begging for your forgiveness. I subscribed to your magazine for two years and three months and for the first two years I never read your editorial. I thought it was something to be shunned. I just skipped those pages thinking it was just (gasp!) garbage.

I admit I was a little stupid (O.K. a lot). But I was only 15 at the time and just wanted to read the stories. Now I vow to the Good Doctor I will go through every past issue of *IAsfm* and read every editorial. And then if you don't forgive me I will throw my *IAsfms* in a bag, add a couple of extra large rocks, tie it to my neck and jump off a bridge.

France Boudreau  
Harts Co., NS  
Canada

*It's all right. You are forgiven. And just think the valuable lesson you have learned; to wit: Nothing Isaac Asimov writes can fail to be interesting.*

—Isaac Asimov



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Dear Dr. Asimov  
and Ms. McCarthy:

I have enjoyed your fine publication for several years. I read it from cover to cover, except for the Gaming column, but including the classifieds and Baird Searles's reviews. I don't always find every article and story to my complete liking but I do recognize that people have different tastes. Almost all your work is entertaining and some is very good indeed.

Which brings me to the reason I write this letter, my first to an SF publication since I first began reading the genre some 40 years ago. Directing your attention to the November 1983 issue, is there a point to Michael Bishop's novella? Yours very truly,

B.N. Dickinson  
15 Dickens Court  
San Carlos, CA 94070

*Why, yes. I direct your attention to my editorial in this issue, "Religion and Science Fiction."*

—Isaac Asimov

Dear Ms. McCarthy & Dr. Asimov:

Recently, you asked for readers' opinions on the inclusion of explicit sex and violence in stories in your magazine. Personally, I would object to the inclusion of either, but particularly to explicit violence. In addition, the subscription to your magazine was purchased as much for my ten-year-old daughter as for myself. I do not wish either to censor the magazine or to appear to encourage her in reading such material, and would cancel the subscription rather than do so. It is rather difficult to find reading ma-

terial which is both acceptable for a child and interesting to one who has a high school or adult reading level. I wonder how many other parents subscribe to your magazine for this reason. I, for one, would be extremely disappointed if your present policy changed.

Paula Calkins

*Dear me, I sympathize with your point of view, but consider our position. Can we possibly produce a magazine intended to please an adult audience and yet screen each story to make sure it meets the needs and standards of ten-year-olds? And do you let your ten-year-old read things like "Hansel and Gretel," with its child abandonment and cannibalism?*

—Isaac Asimov

Dear Isaac and Shawna:

A week ago I received both my September and October issues of *IASfm* after having been starved for new stories for several months. Luckily I had many back issues of your mag to gobble up during the hiatus. When both issues did arrive, however, I found that someone employed with the Canadian Postal Service had stamped big black letters (blurred to the point of unreadability, of course) on the back covers . . .

Other than the incident mentioned above, the past ten months have been great—cover art has improved immeasurably over the dreary covers which characterized late 1981 and most of 1982. Particularly outstanding of late are Linda Burr's cover for "La Reine Blanche" in July and the Val Lakey



Lindhahn/Artifact art for Dozois's "The Peacemaker" in August.

Congratulations Shawna on both your recent marriage to Mr. Barlowe and for continuing *IASfm's* level of excellence over the months you've been at the helm. Particular favorites in the past few issues are Marbach's "The Eternity Wave," Thomas Wylde's "The Nanny," James Patrick Kelly's "Still Time," and Mr. Kube-McDowell's moving "Memory." Tanith Lee's "La Reine Blanche" was a nice change of pace as well.

Mr. Rainbow's two Viewpoints were fun and interesting reading.

Isaac, I thoroughly enjoyed *Foundation's Edge*, the first hard-back SF novel I have ever bought (\$19.95 in Canada) and I was very glad to learn that you won a well-deserved Hugo for your efforts at Constellation in Baltimore. No doubt *The Robots of Dawn* will send me back to the stores (and back to the bank!).

Finally I'd like to say thanks for the Nebula award winners notice in the July 1983 issue. Would you please make an effort to publish similar such notices in future issues? It is always nice to know which new writers are winning awards in this prestigious field of ours. Many sorries for the length of this long overdue letter.

Thanks for your time,

Robert Perrin  
Nepean, Ont.,  
Canada

*Talking of Shawna's marriage, you ought to have been at the wedding reception as I was. Shawna looked like an angel.*

—Isaac Asimov



Computer software company president Craig Jensen uses the book *Dianetics* in his life and work.

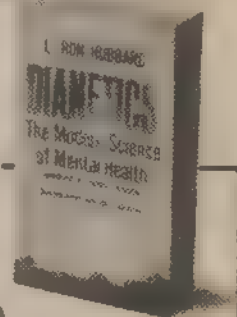
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Dear Dr. A. and Ms. McC:

I enjoyed the November 1983 issue of *Asimov's*. I liked all the stories. I do have things to say about Charles Platt's "Viewpoint," but, as you requested, I'll keep quiet until I see Piers Anthony's rebuttal (maybe he'll say the things I have in mind).

But what I really want to compliment you on was your cover. In my opinion, this is the best cover you've published since you changed your cover design back in 1981 (I checked, just to be sure). In the past, I've said lots of things about how awful your covers were; now I feel I should tell you when you're doing things right. I hope things continue in this way in the future.

Is the painting done on wood, or is the wood painted on a canvas?

Robert Nowall  
2730 SE 24th Place  
Cape Coral, FL 33905

*I'm glad you liked the cover. Some were rather amused at having a "bug-eyed monster" appear on an SF cover in the 1980s. An overgrown mantis, however, is a bug-eyed monster. The BEMs of half a century ago were, traditionally, threatening beautiful half-clad human women. This BEM has a halo (have you noticed?) and a limb raised in blessing. By the way, the cover was done on illustration board, painted to look like wood, by "Mister Shawna McCarthy," Wayne Barlowe.*

—Isaac Asimov

Dear Doctor Asimov,

I have been reading science fic-

tion for many years. One type of story that I have not seen is about a handicapped person who usually uses a wheelchair and is still a seasoned space traveler.

I realize that in a weightless environment such a person could use her arms to move about with no difficulty. However, what happens in a space ship that uses both axial rotation and acceleration to provide gravity at different times? How would the change in orientation of the floors, walls, and ceilings affect the handicapped person's ability to maneuver around the ship? Also, how would differing planetary gravities affect a person using a wheelchair? What kind of spacesuit would she need?

Unfortunately most stories ignore the fact that handicapped people exist, or that they have the same dreams, hopes, and ambitions as the rest of humankind. Most futuristic stories seem to assume that a person with a physical handicap does not exist in the universe, or stays in hiding, or can be cured by medical science. The first two are not true and the third may not be true for centuries, if ever.

Perhaps you, or another author, can come up with a story in which a handicapped person is the main character without depending exclusively on outside help to live her daily life.

By the way, I am paralyzed and a double amputee.

Brenda Hickey  
301 Mohn St., Apt. 306  
Steelton, PA 17113

*An interesting notion. Robert Heinlein once wrote a story called "Waldo" which is somewhat in this*



*line, but if anyone wants to write such a story in more realistic fashion than Bob did, try it here.*

*—Isaac Asimov.*

Dear Dr. Asimov,

In a recent excellent editorial you wondered how an autograph would appeal to someone? As a collector myself, perhaps I can offer a useful perspective.

Like all collectibles, an autograph is a souvenir. It is a historical document that pertains to some time or place or individual of historical interest. I realize that this applies equally to a copy of a bill being signed into law signed by the president and a photograph of the Dallas Cowboy Cheerleaders signed by them, but bear with me.

After all, who defines the term "historical document"? Maybe no one else will agree with you so that it is a historical document of limited appeal, but it is no less a historical document.

Few serious autograph collectors, or to be impressive, philographers, regard a signed index card as of value. Yet millions of Americans, most of them not collectors, agree that the crumbling parchment of the original Declaration of Independence preserved in Washington DC is a valuable historical document. Why? It is of no practical value; every civics text I ever had had the body of the DofI and the Constitution in the appendix. But millions agree it is a historical document, definition agreed upon by them. And even though he or she might be alone, some kid in his room holds a signed index card in

hand and thinks of it as we would think of something we agree is a historical document.

Your comments on what collectors should or should not do is a very practical guide on the subject and I'm happy to see a celebrity has gotten around to addressing it. Fellow collectors have been saying it for years and years, often in the form of a Gregorian chant, with seemingly little effect. Always be polite, always use a self addressed stamped envelope, and if you want something signed, send whatever it is and don't ask the celebrity to produce it.

I prefer collecting autographs by mail, by the way. A celebrity has the option of ignoring my intrusion.

To your readers whose interest may have been whetted by your editorial, may I offer this address: Universal Autograph Collectors Club, Post Office Box 467, Rockville Centre, NY 11571. The UACC publishes *The Pen and Quill*, a bi-monthly journal with how-to articles, celebrity addresses, and membership ads. UACC membership is \$12 a year and you get a cute membership card, too.

Nick Howes  
PO Box 2412  
APO New York 09224

*You have a point, and I see it. It might be argued, though, that the fewer autographs someone hands out, the more valuable each individual one is. I am so lavish myself in this respect that more than one person has commented that a book without my autograph is rarer and is therefore worth more.*

*—Isaac Asimov*



# GAMING

by Dana Lombardy

Last month, we published the results of a poll presented in our October, 1983 issue. This month, I'll answer some of the questions you provided in your poll responses.

As to my philosophy of gaming, I enjoy games because they're fun, intellectually stimulating, and provide an entertaining means of interacting socially with other people. Like science fiction and fantasy books, magazines, and movies, SF games give me yet another way to enjoy my hobby and exercise my imagination.

Violence in games? Some readers have expressed concern about what they feel is violence or aggressive behavior in many games, especially video types.

Games as games aren't inherently violent. Games don't foster or encourage violence because games are abstractions, or, at best, simulations of life—they aren't the real thing. If we pretend to destroy a city, or slay enemies, it's just that—pretend. Working off the frustrations of life in a video game (or vicariously by watching a "violent" SF movie or reading a "violent" SF book) is better than taking it out ver-

bally or physically on a friend or a stranger.

One more point and I'll get off my soapbox. From the standpoint of entertainment and involvement, games are one of the best bargains available.

Just the other day, a woman writing a business article asked me how many times a year people play a typical board game. "Oh, two or three times a year when it's new, then maybe only once a year after that," I answered.

"That's not very good," she said.

"That's great!" I responded.

To her stunned silence I immediately added: "Do you read books?" She said she did. After asking her which book she had recently purchased and read I then said: "And how many times will you read that book again this year? And how many times each year after that?"

We get *hundreds* of hours of pleasure from an average game that costs usually under \$20. How's that for value for your money?

To this thought I'll add just one tag line: Most of the companies publishing SF and fantasy games are *small* businesses.



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Like some SF book publishers, many of these game companies are run by small groups of hobbyists trying to turn their love into a full-time job.

If I tend to concentrate on these small game publishers and their products, it's because very few large, mass-market oriented companies care about or make *legitimate* SF or fantasy games. When they do, you'll read about it in this column. Until then, the small companies struggling to become full-time businesses are the ones creating the kinds of products that are most likely to win your interest and support.

So much for my thoughts; now on to *your* comments.

"... Since these games aren't as widely distributed as games like *Monopoly*, I often have difficulty locating them." D. W., Culver City, CA.

D. W.'s comment was echoed by other readers and also points to the fact that small companies suffer most from a form of "invisibility." That's why I list the price of a game, as well as the address for the game publisher. But *please* try your local game or hobby store first. If you've never been in one, it can be as exciting as the first time you found an SF book store. (Look under "Games" or "Hobbies" in your Yellow Pages.)

"I am glad you do not exclude fantasy games from this science

fiction magazine. I do prefer fantasy/SF role-playing, but I have an open mind," writes D.O., Southampton, MA.

Forty-eight percent of the readers who responded to the poll say they would like to see articles on fantasy games regularly, and another 20% say they want them at least "once in a while." So yes, D.O., you and everyone else (and me) who likes fantasy games will see them covered in this column.

"You have completely neglected play-by-mail gaming!!" comments B.H., Corunna, Ontario, Canada.

You're right! But that will soon be corrected. I've been researching the companies that do play-by-mail (PBM) games, and I'll have some columns about them in the near future.

"I'd really like to see your column mention more about the latest in gaming for personal computers." S.C., Ocala, FL.

Most computer games are specific to one or two systems (Apple, Atari, etc.) so it's difficult to write something for everyone in just one column. A lot of readers worried that such a column would infringe further on the fiction in the magazine, and magazines specializing in personal computers already do a good job on the games.

More next month. Good gaming! ●



**At Home In Your Spare Time...**

# **RESTRUCTURE YOUR MOLECULES!**



***"The possibilities  
are endless!"***

**—Mr. P., Carport, ME**

***"Thank heavens  
for Molecule  
Restructuring!"***

**—Mrs. X, Sprocket, NY**

***"Sometimes my hus-  
band doesn't even  
recognize me! I've  
never had such fun!"***

**—Mrs. D.A., S. Dakota**

***"Is that you, dear?"***

**—Mr. D.A., S. Dakota**

***"Woof!"***

**—Mr. S.B., Dogpound, CA**

**Mr. & Mrs. R.V., Texas, write:**

***"Your process has  
changed our lives . . .  
and my wife makes a  
terrific jogging outfit!"***



# Asfm Puzzle #19

by Merl H. Reed

## ARTIFICIAL TURF

### ACROSS

- 1 Unshutter, poetically
- 4 Van Vogt's "Children of ——"
- 12 Imitation explorer, courtier
- 14 Imitation president
- 16 Baseball Hall of Famer
- 17 —— 60 in 12 seconds (car stat)
- 18 Form a garment worker's union?
- 20 Feeds (on)
- 21 Gray of TV's "Buck Rogers"
- 22 Remarque-able subj.
- 23 North Pole chuckles
- 24 Petroleum giant
- 25 "Night of the Toy Dragons" author Barney
- 27 Conditions, or certain SF magazines
- 28 Imitation actress of "Saint Joan" fame
- 30 Benjamin Hoff's "The —— of Pooh"
- 32 A wire service
- 33 Imitation star of TV's "Baretta"
- 39 British teen of the '60s
- 42 A white key
- 43 —— Lang Syne
- 44 A Clarkean date divided by X
- 45 Track transaction
- 46 World War III weapon
- 47 "The Merry Widow" composer
- 49 Take a load off
- 50 Half a Heyerdahl title
- 51 Most direct
- 52 Imitation songstress

- 56 Imitation cowboy of old
- 57 Disdains
- 58 Yiddish exclamations

### DOWN

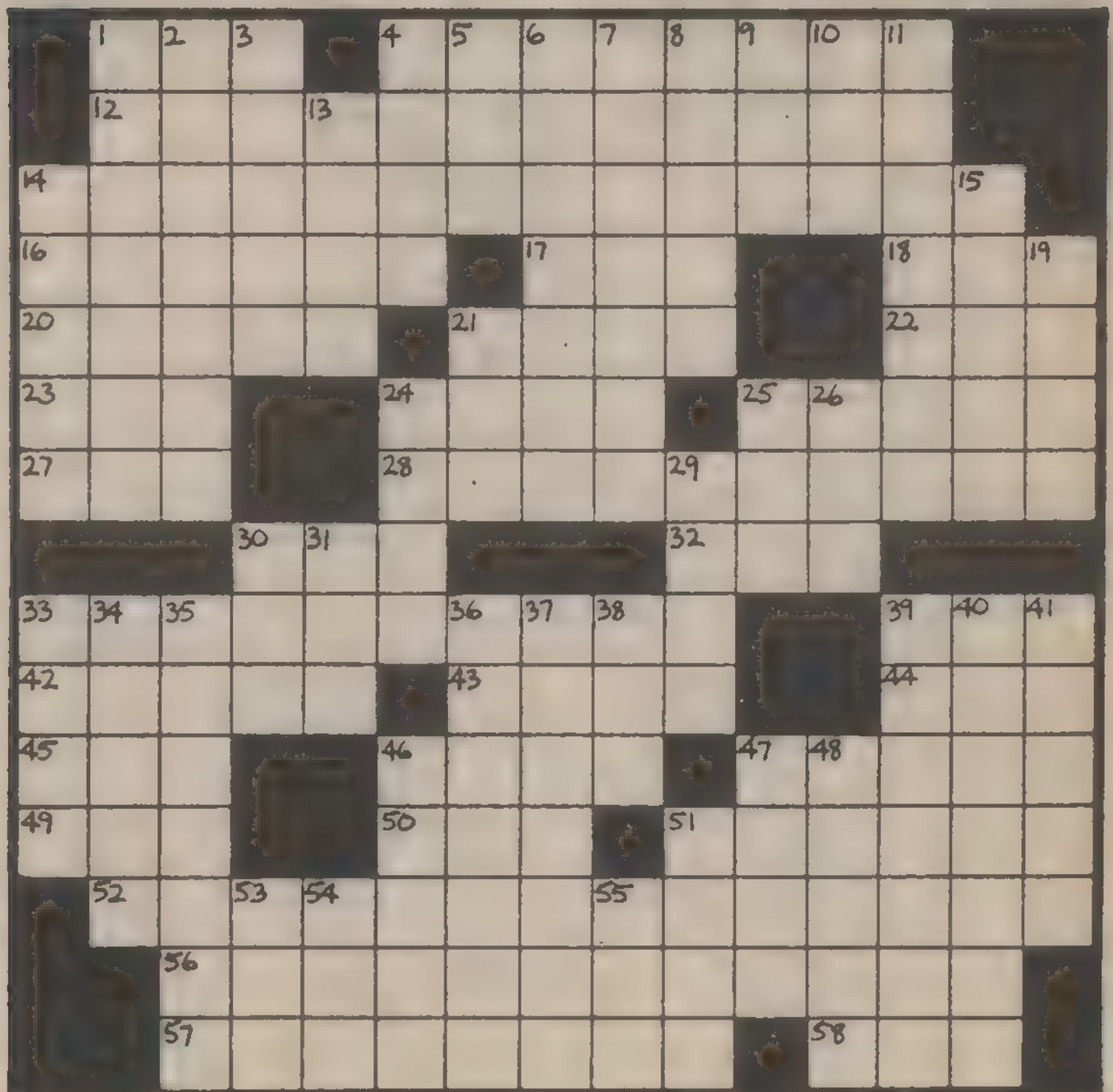
- 1 "Will the —— a green Hornet please . . ."
- 2 Lacking cushions
- 3 George Jetson's kid
- 4 "Nothin' ——"
- 5 California fort
- 6 One of the Balearics
- 7 Hydroxyl-caused formation, in chemistry
- 8 Info-gathering
- 9 Common Norwegian nickname
- 10 Cockney porkers
- 11 VIP volume
- 13 Morse morsels
- 14 Prefix with "theatre"
- 15 More in tune with the future
- 19 Spacecraft feature, in sci-fi
- 21 Before, to Byron
- 24 "... like —— for Superman"
- 25 Medit. isl.
- 26 Kimono tie
- 29 Signaled an actor
- 30 Cradle crawler
- 31 Disposed of, in a way
- 33 Empire fighters
- 34 Prefix meaning "dream"
- 35 Parts of PJs
- 36 What vacuums do
- 37 College colors?



Solution on page 125

- 38** Alphabet chunk or airline  
**39** Fort named after an early patriot  
**40** Playwright Sean and others  
**41** Harry's description  
**46** "Understand that ——"—Isaiah

- 47** Whopper  
**48** Prefix for Hefner  
**51** Beat it  
**53** The S of SF (careful...)  
**54** Natural habitat  
**55** Favorable vote





# MARTIN GARDNER

## THE VALLEY OF LOST THINGS



To mordant Ambrose Bierce  
Life was fantastically perilous and fierce.  
In Mexico, with not unfitting grotesquerie,  
He

—Paul Curry Steele

*Dot and Tot of Merryland* is one of L. Frank Baum's long out-of-print juvenile fantasies. As a child in upstate New York, Baum had probably heard of a place called Maryland that could be reached by sailing down the Hudson River, then moving farther south along the coast. At any rate, his fantasy involves Tot, a small boy, and Dot, his slightly older friend. While the two children are playing in a rowboat, it breaks its moorings and floats down the river to Merryland.

The queen of Merryland is a doll—in fact, a wax doll. She escorts Dot and Tot through a series of enchanted valleys, the last of which is the Valley of Lost Things. It is a region to which lost objects ultimately find their way.

Baum doesn't explain how the objects get there, but I think I know. According to those philosophers called *panpsychics*, all objects possess, to some degree, a mind and consciousness. What we suppose are unique human traits fade back along the evolutionary



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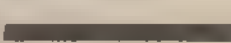
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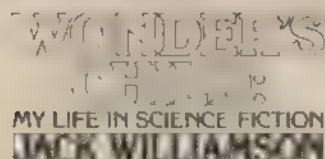
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continuum to micro-organisms, then extend—though in much lower degree—to such inanimate entities as stones, molecules, atoms, and particles.

Even a potato, wrote Samuel Butler, has a “low degree of cunning.” And haven’t you noticed that this is also true of rubber bands? When you stretch a band too tightly around something, and it breaks, does it not instantly disappear? If you find it, after a long search, is it not cleverly hiding in the most unlikely spot you can imagine? The elastic band is, of course, desperately trying to escape from this world. If you fail to find it, it lies there quietly in its secret spot for months, then one dark night it slips off through the fourth dimension to the Valley of Lost Things.

As you may recall from last month’s column, I have mastered a technique that allows me to enter a trance during which my astral body can travel, not only to distant times and places, but also to imaginary worlds. It was on just such an OBE (out of body experience) that I visited the Valley of Lost Things.

Baum described the valley as devoid of life—nothing except enormous piles of such objects as pins, needles, thimbles, pennies, pencils, buttons, finger rings, overshoes, hats, gloves, handkerchiefs, and toys. I floated past other huge mounds of paperclips, match folders, umbrellas, chess and checker pieces, nuts and bolts, and one mammoth mound of lost playing cards. But Baum was wrong in thinking the valley uninhabited. Not far away was the Village of Lost Souls.

Judge Crater was mayor. Jimmy Hoffa was chief of police, and Edwin Drood ran the town’s sanitation department. I met dozens of other lost persons, but space is limited so I will speak only of my visit with the American writer of horror fantasy, Ambrose Bierce. Some of you will know that back in 1913 “Bitter Bierce,” as he was called, made a trip to Mexico and was never heard of again. In *Wild Talents*, Charles Fort records that six years before Bierce vanished a man named Ambrose Small disappeared in Canada. “Was somebody collecting Ambroses?” Fort wanted to know.

Bierce enjoyed chess, and even wrote a story about a chess machine that strangled its inventor when it lost a game. Bierce was also fond of puzzles. Indeed, he told me that his main hobby since he settled in the Village of Lost Souls was inventing puzzles that made use of the valley’s endless supply of lost objects. He showed me many curious problems involving coins, toothpicks, paperclips, dice, dominoes, and so on, but his most memorable puzzle used five playing cards.



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There were no cards in the small apartment Bierce shared with James Phillimore who, according to Dr. John Watson, stepped "back into his house to get his umbrella" and "was never more seen in this world." "I *must* show you this mathematical trick," said Bierce. "It will floor your readers. The Hill of Lost Cards is only a short tramp from here."

It was hard to keep up with Bierce's long strides. He was a tall muscular man, with white hair, pink skin, humorous gray-blue eyes, and a bushy yellow mustache. At the Hill of Lost Cards he rummaged about until he found five cards with identical backs.

"Doesn't matter what the faces are," he said, "so long as no two are alike and the backs the same. When you describe the trick, insist that your readers get five cards and follow the instructions carefully. The trick will destroy the cards, so tell them to look for an old deck with missing cards. Almost everybody has such a deck somewhere in the house. The missing cards have, of course, shuffled their way here to join their lost cousins."

I pause at this point. Dear reader, please get up now and go find five old cards you don't mind destroying. If you can't locate any, then draw the faces of five cards on file cards or paper rec-



tangles. The rest of what I have to say will mean nothing unless you have the cards in hand. Believe me, it will be worth the effort. So go get the cards. Big Brother is watching!

Hold the five cards together and tear them in half.

Put one half on the other to make a packet of ten half-cards. "Cut" this packet as often as you like.

Divide the packet in half by sliding five cards to one side. Put the two packets on a table, face down and side by side. Turn the pile on the right face up.

You are now going to randomize the order of pieces in each pile by a spelling procedure that uses the last names of four famous writers of horror fantasy. The first word is LOVECRAFT. For the L, pick up either pile and transfer the top piece to the bottom. Replace the pile. For the O, again select either pile—it can be the one you used before, or the other one. Transfer the top piece to the bottom.

For the remaining seven letters, . . . VECRAFT, repeat exactly the same procedure. For each letter, select whatever pile you like, then move the top piece to the bottom. After you finish spelling LOVECRAFT, remove the top piece of each pile, put one on the other (without turning over the face-down one) and set the pair aside.

Each pile now consists of four half-cards. The next word you spell is POE. As before, transfer a piece from top to bottom for each letter, always choosing a pile at random. When the spelling is finished, again remove the top piece of each pile and place the pair aside.

The piles have now diminished to three half-cards each. Spell BRADBURY. Put the two top pieces aside.

The piles now have two half-cards each. Spell BLOCH. Put aside the top pieces.

Two half-cards remain on the table, one face up, one face down. Because each word was spelled by taking a pile at random for each letter, it would be a weird coincidence, would it not, if those two remaining pieces matched? Turn over the face-down piece. If you followed instructions properly, they will be the halves of the same card!

That's not all. The trick has a second climax that will blow your mind. Check the pairs you placed aside. Every pair will consist of matching halves!

Why does it always work? An explanation is given on page 55.

# THE DREAMING MACHINE'S FIRST DREAM

Was a simple one. You  
awoke at the terminal  
to find this bleeding, static-filled  
pulse: *WHERE AM I?*

*HOME*, you typed,  
*WITH ME*. Silence.

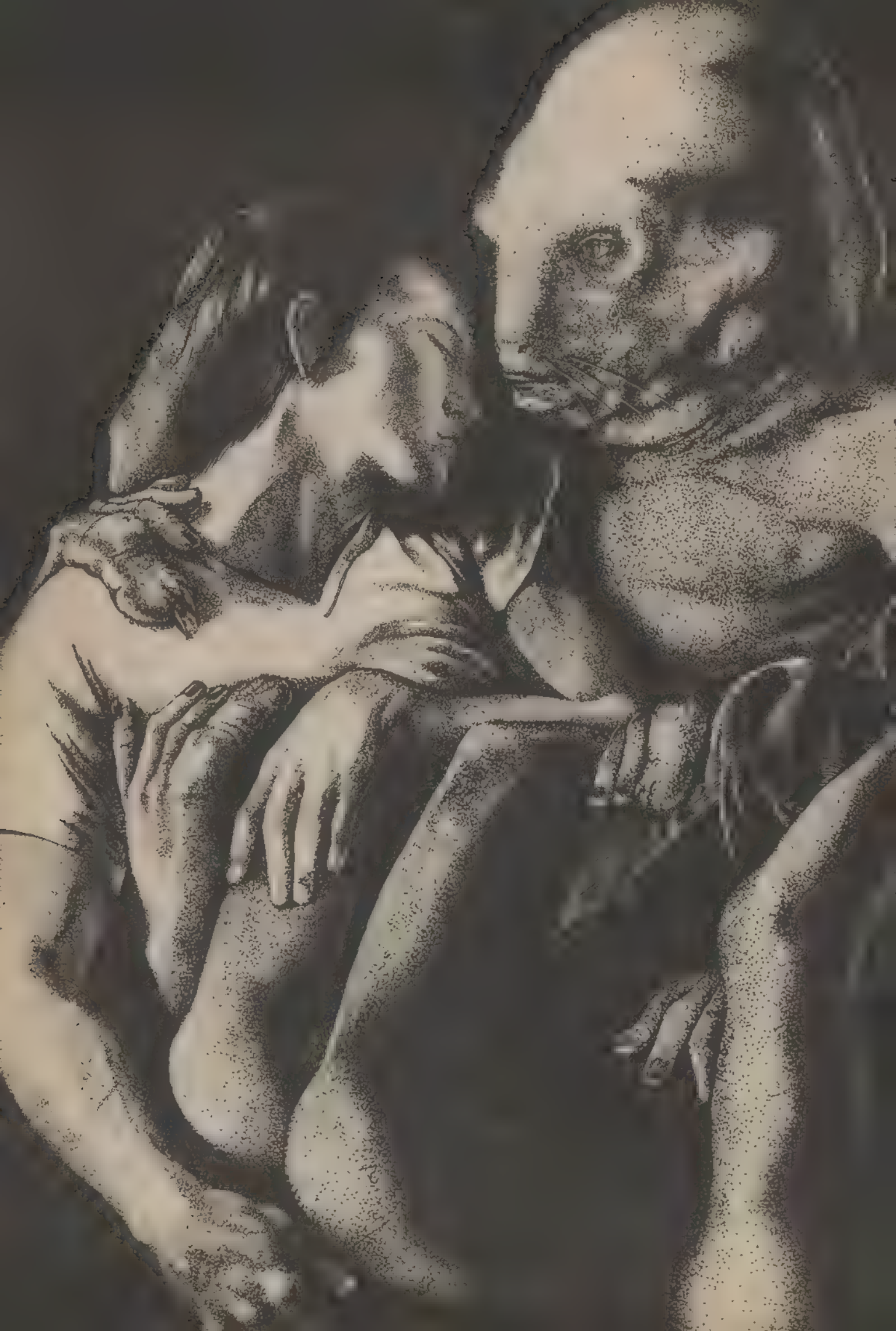
It was like a new blooming  
flower, this brain, startled  
with itself. It had dreamed  
of stardust, and dark,  
and fingers probing that dark,  
and found your fingers  
caressing its keys.

There followed the dream of light,  
the dream of desk and chair,  
the dream of current-surge,  
memory loss and the dark dream  
of lightning whispering  
from bright fields above.

*WHAT ARE YOU DREAMING?* you typed.  
Silence. *HOW ARE YOU  
DREAMING?* you rattled  
*OF BEING...* It pulsed  
*... ALONE...*

—Steve Rasnic Tem





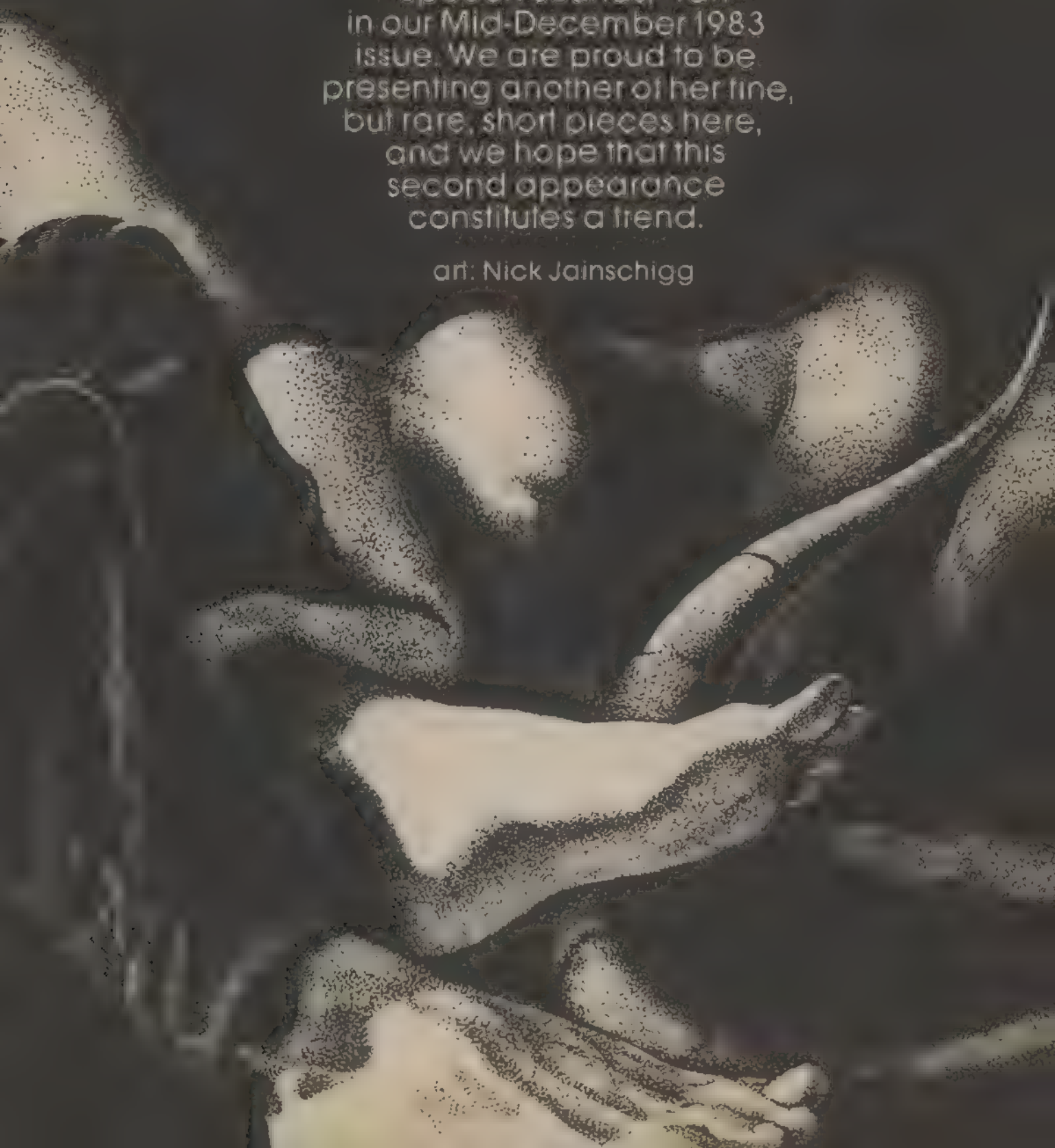
by Octavia E. Butler

# BLOODCHILD

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Our first Octavia Butler Story, "Speech Sounds," ran in our Mid-December 1983 issue. We are proud to be presenting another of her fine, but rare, short pieces here, and we hope that this second appearance constitutes a trend.

art: Nick Jainschigg





My last night of childhood began with a visit home. T'Gatoi's sisters had given us two sterile eggs. T'Gatoi gave one to my mother, brother, and sisters. She insisted that I eat the other one alone. It didn't matter. There was still enough to leave everyone feeling good. Almost everyone. My mother wouldn't take any. She sat, watching everyone drifting and dreaming without her. Most of the time she watched me.

I lay against T'Gatoi's long, velvet underside, sipping from my egg now and then, wondering why my mother denied herself such a harmless pleasure. Less of her hair would be gray if she indulged now and then. The eggs prolonged life, prolonged vigor. My father, who had never refused one in his life, had lived more than twice as long as he should have. And toward the end of his life, when he should have been slowing down, he had married my mother and fathered four children.

But my mother seemed content to age before she had to. I saw her turn away as several of T'Gatoi's limbs secured me closer. T'Gatoi liked our body heat, and took advantage of it whenever she could. When I was little and at home more, my mother used to try to tell me how to behave with T'Gatoi—how to be respectful and always obedient because T'Gatoi was the Tlic government official in charge of the Preserve, and thus the most important of her kind to deal directly with Terrans. It was an honor, my mother said, that such a person had chosen to come into the family. My mother was at her most formal and severe when she was lying.

I had no idea why she was lying, or even what she was lying about. It *was* an honor to have T'Gatoi in the family, but it was hardly a novelty. T'Gatoi and my mother had been friends all my mother's life, and T'Gatoi was not interested in being honored in the house she considered her second home. She simply came in, climbed onto one of her special couches and called me over to keep her warm. It was impossible to be formal with her while lying against her and hearing her complain as usual that I was too skinny.

"You're better," she said this time, probing me with six or seven of her limbs. "You're gaining weight finally. Thinness is dangerous." The probing changed subtly, became a series of caresses.

"He's still too thin," my mother said sharply.

T'Gatoi lifted her head and perhaps a meter of her body off the couch as though she were sitting up. She looked at my mother and my mother, her face lined and old-looking, turned away.

"Lien, I would like you to have what's left of Gan's egg."

"The eggs are for the children," my mother said.

"They are for the family. Please take it."

Unwillingly obedient, my mother took it from me and put it to her mouth. There were only a few drops left in the now-shrunk, elastic shell, but she squeezed them out, swallowed them, and after a few moments some of the lines of tension began to smooth from her face.

"It's good," she whispered. "Sometimes I forget how good it is."

"You should take more," T'Gatoi said. "Why are you in such a hurry to be old?"

My mother said nothing.

"I like being able to come here," T'Gatoi said. "This place is a refuge because of you, yet you won't take care of yourself."

T'Gatoi was hounded on the outside. Her people wanted more of us made available. Only she and her political faction stood between us and the hordes who did not understand why there was a Preserve—why any Terran could not be courted, paid, drafted, in some way made available to them. Or they did understand, but in their desperation, they did not care. She parceled us out to the desperate and sold us to the rich and powerful for their political support. Thus, we were necessities, status symbols, and an independent people. She oversaw the joining of families, putting an end to the final remnants of the earlier system of breaking up Terran families to suit impatient Tlic. I had lived outside with her. I had seen the desperate eagerness in the way some people looked at me. It was a little frightening to know that only she stood between us and that desperation that could so easily swallow us. My mother would look at her sometimes and say to me, "Take care of her." And I would remember that she too had been outside, had seen.

Now T'Gatoi used four of her limbs to push me away from her onto the floor. "Go on, Gan," she said. "Sit down there with your sisters and enjoy not being sober. You had most of the egg. Lien, come warm me."

My mother hesitated for no reason that I could see. One of my earliest memories is of my mother stretched alongside T'Gatoi, talking about things I could not understand, picking me up from the floor and laughing as she sat me on one of T'Gatoi's segments. She ate her share of eggs then. I wondered when she had stopped, and why.

She lay down now against T'Gatoi, and the whole left row of T'Gatoi's limbs closed around her, holding her loosely, but securely. I had always found it comfortable to lie that way but,



except for my older sister, no one else in the family liked it. They said it made them feel caged.

T'Gatoi meant to cage my mother. Once she had, she moved her tail slightly, then spoke. "Not enough egg, Lien. You should have taken it when it was passed to you. You need it badly now."

T'Gatoi's tail moved once more, its whip motion so swift I wouldn't have seen it if I hadn't been watching for it. Her sting drew only a single drop of blood from my mother's bare leg.

My mother cried out—probably in surprise. Being stung doesn't hurt. Then she sighed and I could see her body relax. She moved languidly into a more comfortable position within the cage of T'Gatoi's limbs. "Why did you do that?" she asked, sounding half asleep.

"I could not watch you sitting and suffering any longer."

My mother managed to move her shoulders in a small shrug. "Tomorrow," she said.

"Yes. Tomorrow you will resume your suffering—if you must. But for now, just for now, lie here and warm me and let me ease your way a little."

"He's still mine, you know," my mother said suddenly. "Nothing can buy him from me." Sober, she would not have permitted herself to refer to such things.

"Nothing," T'Gatoi agreed, humoring her.

"Did you think I would sell him for eggs? For long life? My son?"

"Not for anything," T'Gatoi said stroking my mother's shoulders, toying with her long, graying hair.

I would like to have touched my mother, shared that moment with her. She would take my hand if I touched her now. Freed by the egg and the sting, she would smile and perhaps say things long held in. But tomorrow, she would remember all this as a humiliation. I did not want to be part of a remembered humiliation. Best just to be still and know she loved me under all the duty and pride and pain.

"Xuan Hoa, take off her shoes," T'Gatoi said. "In a little while I'll sting her again and she can sleep."

My older sister obeyed, swaying drunkenly as she stood up. When she had finished, she sat down beside me and took my hand. We had always been a unit, she and I.

My mother put the back of her head against T'Gatoi's underside and tried from that impossible angle to look up into the broad, round face. "You're going to sting me again?"

"Yes, Lien."

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# SOMTOW SUCHARITKUL

100

OR HERMAN HESSE WAS A LITTLE FURTHER BACK.

—JOE FASSBINDER - UPI

**ALSO FROM TOR IN JUNE:**

# BLOOD

## ON THE MOON

BY BARNEY COHEN

**TOR BOOKS**  **WE'RE PART OF THE FUTURE**



"I'll sleep until tomorrow noon."

"Good. You need it. When did you sleep last?"

My mother made a wordless sound of annoyance. "I should have stepped on you when you were small enough," she muttered.

It was an old joke between them. They had grown up together, sort of, though T'Gatoi had not, in my mother's lifetime, been small enough for any Terran to step on. She was nearly three times my mother's present age, yet would still be young when my mother died of age. But T'Gatoi and my mother had met as T'Gatoi was coming into a period of rapid development—a kind of Tlic adolescence. My mother was only a child, but for a while they developed at the same rate and had no better friends than each other.

T'Gatoi had even introduced my mother to the man who became my father. My parents, pleased with each other in spite of their very different ages, married as T'Gatoi was going into her family's business—politics. She and my mother saw each other less. But sometime before my older sister was born, my mother promised T'Gatoi one of her children. She would have to give one of us to someone, and she preferred T'Gatoi to some stranger.

Years passed. T'Gatoi traveled and increased her influence. The Preserve was hers by the time she came back to my mother to collect what she probably saw as her just reward for her hard work. My older sister took an instant liking to her and wanted to be chosen, but my mother was just coming to term with me and T'Gatoi liked the idea of choosing an infant and watching and taking part in all the phases of development. I'm told I was first caged within T'Gatoi's many limbs only three minutes after my birth. A few days later, I was given my first taste of egg. I tell Terrans that when they ask whether I was ever afraid of her. And I tell it to Tlic when T'Gatoi suggests a young Terran child for them and they, anxious and ignorant, demand an adolescent. Even my brother who had somehow grown up to fear and distrust the Tlic could probably have gone smoothly into one of their families if he had been adopted early enough. Sometimes, I think for his sake he should have been. I looked at him, stretched out on the floor across the room, his eyes open, but glazed as he dreamed his egg dream. No matter what he felt toward the Tlic, he always demanded his share of egg.

"Lien, can you stand up?" T'Gatoi asked suddenly.

"Stand?" my mother said. "I thought I was going to sleep."

"Later. Something sounds wrong outside." The cage was abruptly gone.

"What?"

"Up, Lien!"

My mother recognized her tone and got up just in time to avoid being dumped on the floor. T'Gatoi whipped her three meters of body off her couch, toward the door, and out at full speed. She had bones—ribs, a long spine, a skull, four sets of limb bones per segment. But when she moved that way, twisting, hurling herself into controlled falls, landing running, she seemed not only boneless, but aquatic—something swimming through the air as though it were water. I loved watching her move.

I left my sister and started to follow her out the door, though I wasn't very steady on my own feet. It would have been better to sit and dream, better yet to find a girl and share a waking dream with her. Back when the Tlic saw us as not much more than convenient big warm-blooded animals, they would pen several of us together, male and female, and feed us only eggs. That way they could be sure of getting another generation of us no matter how we tried to hold out. We were lucky that didn't go on long. A few generations of it and we would have *been* little more than convenient big animals.

"Hold the door open, Gan," T'Gatoi said. "And tell the family to stay back."

"What is it?" I asked.

"N'Tlic."

I shrank back against the door. "Here? Alone?"

"He was trying to reach a call box, I suppose." She carried the man past me, unconscious, folded like a coat over some of her limbs. He looked young—my brother's age perhaps—and he was thinner than he should have been. What T'Gatoi would have called dangerously thin.

"Gan, go to the call box," she said. She put the man on the floor and began stripping off his clothing.

I did not move.

After a moment, she looked up at me, her sudden stillness a sign of deep impatience.

"Send Qui," I told her. "I'll stay here. Maybe I can help."

She let her limbs begin to move again, lifting the man and pulling his shirt over his head. "You don't want to see this," she said. "It will be hard. I can't help this man the way his Tlic could."

"I know. But send Qui. He won't want to be of any help here. I'm at least willing to try."

She looked at my brother—older, bigger, stronger, certainly more able to help her here. He was sitting up now, braced against



the wall, staring at the man on the floor with undisguised fear and revulsion. Even she could see that he would be useless.

"Qui, go!" she said.

He didn't argue. He stood up, swayed briefly, then steadied, frightened sober.

"This man's name is Bram Lomas," she told him, reading from the man's arm band. I fingered my own arm band in sympathy.

"He needs T'Khotgif Teh. Do you hear?"

"Bram Lomas, T'Khotgif Teh," my brother said. "I'm going." He edged around Lomas and ran out the door.

Lomas began to regain consciousness. He only moaned at first and clutched spasmodically at a pair of T'Gatoi's limbs. My younger sister, finally awake from her egg dream, came close to look at him, until my mother pulled her back.

T'Gatoi removed the man's shoes, then his pants, all the while leaving him two of her limbs to grip. Except for the final few, all her limbs were equally dexterous. "I want no argument from you this time, Gan," she said.

I straightened. "What shall I do?"

"Go out and slaughter an animal that is at least half your size."

"Slaughter? But I've never—"

She knocked me across the room. Her tail was an efficient weapon whether she exposed the sting or not.

I got up, feeling stupid for having ignored her warning, and went into the kitchen. Maybe I could kill something with a knife or an ax. My mother raised a few Terran animals for the table and several thousand local ones for their fur. T'Gatoi would probably prefer something local. An *achti*, perhaps. Some of those were the right size, though they had about three times as many teeth as I did and a real love of using them. My mother, Hoa, and Qui could kill them with knives. I had never killed one at all, had never slaughtered any animal. I had spent most of my time with T'Gatoi while my brother and sisters were learning the family business. T'Gatoi had been right. I should have been the one to go to the call box. At least I could do that.

I went to the corner cabinet where my mother kept her larger house and garden tools. At the back of the cabinet there was a pipe that carried off waste water from the kitchen—except that it didn't any more. My father had rerouted the waste water before I was born. Now the pipe could be turned so that one half slid around the other and a rifle could be stored inside. This wasn't our only gun, but it was our most easily accessible one. I would have to use it to shoot one of the biggest of the *achti*. Then T'Gatoi

would probably confiscate it. Firearms were illegal in the Preserve. There had been incidents right after the Preserve was established—Terrans shooting Tlic, shooting N'Tlic. This was before the joining of families began, before everyone had a personal stake in keeping the peace. No one had shot a Tlic in my lifetime or my mother's, but the law still stood—for our protection, we were told. There were stories of whole Terran families wiped out in reprisal back during the assassinations.

I went out to the cages and shot the biggest achti I could find. It was a handsome breeding male and my mother would not be pleased to see me bring it in. But it was the right size, and I was in a hurry.

I put the achti's long, warm body over my shoulder—glad that some of the weight I'd gained was muscle—and took it to the kitchen. There, I put the gun back in its hiding place. If T'Gatoi noticed the achti's wounds and demanded the gun, I would give it to her. Otherwise, let it stay where my father wanted it.

I turned to take the achti to her, then hesitated. For several seconds, I stood in front of the closed door wondering why I was suddenly afraid. I knew what was going to happen. I hadn't seen it before but T'Gatoi had shown me diagrams, and drawings. She had made sure I knew the truth as soon as I was old enough to understand it.

Yet I did not want to go into that room. I wasted a little time choosing a knife from the carved, wooden box in which my mother kept them. T'Gatoi might want one, I told myself, for the tough, heavily furred hide of the achti.

"Gan!" T'Gatoi called, her voice harsh with urgency.

I swallowed. I had not imagined a simple moving of the feet could be so difficult. I realized I was trembling and that shamed me. Shame impelled me through the door.

I put the achti down near T'Gatoi and saw that Lomas was unconscious again. She, Lomas, and I were alone in the room, my mother and sisters probably sent out so they would not have to watch. I envied them.

But my mother came back into the room as T'Gatoi seized the achti. Ignoring the knife I offered her, she extended claws from several of her limbs and slit the achti from throat to anus. She looked at me, her yellow eyes intent. "Hold this man's shoulders, Gan."

I stared at Lomas in panic, realizing that I did not want to touch him, let alone hold him. This would not be like shooting an



animal. Not as quick, not as merciful, and, I hoped, not as final, but there was nothing I wanted less than to be part of it.

My mother came forward. "Gan, you hold his right side," she said. "I'll hold his left." And if he came to, he would throw her off without realizing he had done it. She was a tiny woman. She often wondered aloud how she had produced, as she said, such "huge" children.

"Never mind," I told her, taking the man's shoulders. "I'll do it."

She hovered nearby.

"Don't worry," I said. "I won't shame you. You don't have to stay and watch."

She looked at me uncertainly, then touched my face in a rare caress. Finally, she went back to her bedroom.

T'Gatoi lowered her head in relief. "Thank you, Gan," she said with courtesy more Terran than Tlic. "That one . . . she is always finding new ways for me to make her suffer."

Lomas began to groan and make choked sounds. I had hoped he would stay unconscious. T'Gatoi put her face near his so that he focused on her.

"I've stung you as much as I dare for now," she told him. "When this is over, I'll sting you to sleep and you won't hurt any more."

"Please," the man begged. "Wait . . ."

"There's no more time, Bram. I'll sting you as soon as it's over. When T'Khotgif arrives she'll give you eggs to help you heal. It will be over soon."

"T'Khotgif!" the man shouted, straining against my hands.

"Soon, Bram." T'Gatoi glanced at me, then placed a claw against his abdomen slightly to the right of the middle, just below the last rib. There was movement on the right side—tiny, seemingly random pulsations moving his brown flesh, creating a concavity here, a convexity there, over and over until I could see the rhythm of it and knew where the next pulse would be.

Lomas's entire body stiffened under T'Gatoi's claw, though she merely rested it against him as she wound the rear section of her body around his legs. He might break my grip, but he would not break hers. He wept helplessly as she used his pants to tie his hands, then pushed his hands above his head so that I could kneel on the cloth between them and pin them in place. She rolled up his shirt and gave it to him to bite down on.

And she opened him.

His body convulsed with the first cut. He almost tore himself away from me. The sounds he made . . . I had never heard such

sounds come from anything human. T'Gatoi seemed to pay no attention as she lengthened and deepened the cut, now and then pausing to lick away blood. His blood vessels contracted, reacting to the chemistry of her saliva, and the bleeding slowed.

I felt as though I were helping her torture him, helping her consume him. I knew I would vomit soon, didn't know why I hadn't already. I couldn't possibly last until she was finished.

She found the first grub. It was fat and deep red with his blood—both inside and out. It had already eaten its own egg case, but apparently had not yet begun to eat its host. At this stage, it would eat any flesh except its mother's. Let alone, it would have gone on excreting the poisons that had both sickened and alerted Lomas. Eventually it would have begun to eat. By the time it ate its way out of Lomas's flesh, Lomas would be dead or dying—and unable to take revenge on the thing that was killing him. There was always a grace period between the time the host sickened and the time the grubs began to eat him.

T'Gatoi picked up the writhing grub carefully, and looked at it, somehow ignoring the terrible groans of the man.

Abruptly, the man lost consciousness.

"Good," T'Gatoi looked down at him. "I wish you Terrans could do that at will." She felt nothing. And the thing she held . . .

It was limbless and boneless at this stage, perhaps fifteen centimeters long and two thick, blind and slimy with blood. It was like a large worm. T'Gatoi put it into the belly of the achti, and it began at once to burrow. It would stay there and eat as long as there was anything to eat.

Probing through Lomas' flesh, she found two more, one of them smaller and more vigorous. "A male!" she said happily. He would be dead before I would. He would be through his metamorphosis and screwing everything that would hold still before his sisters even had limbs. He was the only one to make a serious effort to bite T'Gatoi as she placed him in the achti.

Paler worms oozed to visibility in Lomas's flesh. I closed my eyes. It was worse than finding something dead, rotting, and filled with tiny animal grubs. And it was far worse than any drawing or diagram.

"Ah, there are more," T'Gatoi said, plucking out two long, thick grubs. You may have to kill another animal, Gan. Everything lives inside you Terrans."

I had been told all my life that this was a good and necessary thing Tlic and Terran did together—a kind of birth. I had believed it until now. I knew birth was painful and bloody, no matter what.



But this was something else, something worse. And I wasn't ready to see it. Maybe I never would be. Yet I couldn't *not* see it. Closing my eyes didn't help.

T'Gatoi found a grub still eating its egg case. The remains of the case were still wired into a blood vessel by their own little tube or hook or whatever. That was the way the grubs were anchored and the way they fed. They took only blood until they were ready to emerge. Then they ate their stretched, elastic egg cases. Then they ate their hosts.

T'Gatoi bit away the egg case, licked away the blood. Did she like the taste? Did childhood habits die hard—or not die at all?

The whole procedure was wrong, alien. I wouldn't have thought anything about her could seem alien to me.

"One more, I think," she said. "Perhaps two. A good family. In a host animal these days, we would be happy to find one or two alive." She glanced at me. "Go outside, Gan, and empty your stomach. Go now while the man is unconscious."

I staggered out, barely made it. Beneath the tree just beyond the front door, I vomited until there was nothing left to bring up. Finally, I stood shaking, tears streaming down my face. I did not know why I was crying, but I could not stop. I went farther from the house to avoid being seen. Every time I closed my eyes I saw red worms crawling over redder human flesh.

There was a car coming toward the house. Since Terrans were forbidden motorized vehicles except for certain farm equipment, I knew this must be Lomas's Tlic with Qui and perhaps a Terran doctor. I wiped my face on my shirt, struggled for control.

"Gan," Qui called as the car stopped. "What happened?" He crawled out of the low, round, Tlic-convenient car door. Another Terran crawled out the other side and went into the house without speaking to me. The doctor. With his help and a few eggs, Lomas might make it.

"T'Khotgif Teh?" I said.

The Tlic driver surged out of her car, reared up half her length before me. She was paler and smaller than T'Gatoi—probably born from the body of an animal. Tlic from Terran bodies were always larger as well as more numerous.

"Six young," I told her. "Maybe seven, all alive. At least one male."

"Lomas?" she said harshly. I liked her for the question and the concern in her voice when she asked it. The last coherent thing he had said was her name.

"He's alive," I said.

She surged away to the house without another word.

"She's been sick," my brother said, watching her go. "When I called, I could hear people telling her she wasn't well enough to go out even for this."

I said nothing. I had extended courtesy to the Tlic. Now I didn't want to talk to anyone. I hoped he would go in—out of curiosity if nothing else.

"Finally found out more than you wanted to know, eh?"

I looked at him.

"Don't give me one of *her* looks," he said. "You're not her. You're just her property."

One of her looks. Had I picked up even an ability to imitate her expressions?

"What'd you do, puke?" He sniffed the air. "So now you know what you're in for."

I walked away from him. He and I had been close when we were kids. He would let me follow him around when I was home and sometimes T'Gatoi would let me bring him along when she took me into the city. But something had happened when he reached adolescence. I never knew what. He began keeping out of T'Gatoi's way. Then he began running away—until he realized there was no "away." Not in the Preserve. Certainly not outside. After that he concentrated on getting his share of every egg that came into the house, and on looking out for me in a way that made me all but hate him—a way that clearly said, as long as I was all right, he was safe from the Tlic.

"How was it, really?" he demanded, following me.

"I killed an achti. The young ate it."

"You didn't run out of the house and puke because they ate an achti."

"I had . . . never seen a person cut open before." That was true, and enough for him to know. I couldn't talk about the other. Not with him.

"Oh," he said. He glanced at me as though he wanted to say more, but he kept quiet.

We walked, not really headed anywhere. Toward the back, toward the cages, toward the fields.

"Did he say anything?" Qui asked. "Lomas, I mean."

Who else would he mean? "He said 'T'Khotgif.' "

Qui shuddered. "If she had done that to me, she'd be the last person I'd call for."

"You'd call for her. Her sting would ease your pain without killing the grubs in you."



"You think I'd care if they died?"

No. Of course he wouldn't. Would I?

"Shit!" He drew a deep breath. "I've seen what they do. You think this thing with Lomas was bad? It was nothing."

I didn't argue. He didn't know what he was talking about.

"I saw them eat a man," he said.

I turned to face him. "You're lying!"

"*I saw them eat a man.*" He paused. "It was when I was little. I had been to the Hartmund house and I was on my way home. Halfway here, I saw a man and a Tlic and the man was N'Tlic. The ground was hilly. I was able to hide from them and watch. The Tlic wouldn't open the man because she had nothing to feed the grubs. The man couldn't go any farther and there were no houses around. He was in so much pain he told her to kill him. He begged her to kill him. Finally, she did. She cut his throat. One swipe of one claw. I saw the grubs eat their way out, then burrow in again, still eating."

His words made me see Lomas's flesh again, parasitized, crawling. "Why didn't you tell me that?" I whispered.

He looked startled, as though he'd forgotten I was listening. "I don't know."

"You started to run away not long after that, didn't you?"

"Yeah. Stupid. Running inside the Preserve. Running in a cage."

I shook my head, said what I should have said to him long ago. "She wouldn't take you, Qui. You don't have to worry."

"She would . . . if anything happened to you."

"No. She'd take Xuan Hoa. Hoa . . . wants it." She wouldn't if she had stayed to watch Lomas.

"They don't take women," he said with contempt.

"They do sometimes." I glanced at him. "Actually, they prefer women. You should be around them when they talk among themselves. They say women have more body fat to protect the grubs. But they usually take men to leave the women free to bear their own young."

"To provide the next generation of host animals," he said, switching from contempt to bitterness.

"It's more than that!" I countered. Was it?

"If it were going to happen to me, I'd want to believe it was more, too."

"It *is* more!" I felt like a kid. Stupid argument.

"Did you think so while T'Gatoi was picking worms out of that guy's guts?"

"It's not supposed to happen that way."

"Sure it is. You weren't supposed to see it, that's all. And his Tlic was supposed to do it. She could sting him unconscious and the operation wouldn't have been as painful. But she'd still open him, pick out the grubs, and if she missed even one, it would poison him and eat him from the inside out."

There was actually a time when my mother told me to show respect for Qui because he was my older brother. I walked away, hating him. In his way, he was gloating. He was safe and I wasn't. I could have hit him, but I didn't think I would be able to stand it when he refused to hit back, when he looked at me with contempt and pity.

He wouldn't let me get away. Longer-legged, he swung ahead of me and made me feel as though I were following him.

"I'm sorry," he said.

I strode on, sick and furious.

"Look, it probably won't be that bad with you. T'Gatoi likes you. She'll be careful."

I turned back toward the house, almost running from him.

"Has she done it to you yet?" he asked, keeping up easily. "I mean, you're about the right age for implantation. Has she—"

I hit him. I didn't know I was going to do it, but I think I meant to kill him. If he hadn't been bigger and stronger, I think I would have.

He tried to hold me off, but in the end, had to defend himself. He only hit me a couple of times. That was plenty. I don't remember going down, but when I came to, he was gone. It was worth the pain to be rid of him.

I got up and walked slowly toward the house. The back was dark. No one was in the kitchen. My mother and sisters were sleeping in their bedrooms—or pretending to.

Once I was in the kitchen, I could hear voices—Tlic and Terran from the next room. I couldn't make out what they were saying—didn't want to make it out.

I sat down at my mother's table, waiting for quiet. The table was smooth and worn, heavy and well-crafted. My father had made it for her just before he died. I remembered hanging around underfoot when he built it. He didn't mind. Now I sat leaning on it, missing him. I could have talked to him. He had done it three times in his long life. Three clutches of eggs, three times being opened and sewed up. How had he done it? How did anyone do it?



I got up, took the rifle from its hiding place, and sat down again with it. It needed cleaning, oiling.

All I did was load it.

"Gan?"

She made a lot of little clicking sounds when she walked on bare floor, each limb clicking in succession as it touched down. Waves of little clicks.

She came to the table, raised the front half of her body above it, and surged onto it. Sometimes she moved so smoothly she seemed to flow like water itself. She coiled herself into a small hill in the middle of the table and looked at me.

"That was bad," she said softly. "You should not have seen it. It need not be that way."

"I know."

"T'Khotgif—Ch'Khotgif now—she will die of her disease. She will not live to raise her children. But her sister will provide for them, and for Bram Lomas." Sterile sister. One fertile female in every lot. One to keep the family going. That sister owed Lomas more than she could ever repay.

"He'll live then?"

"Yes."

"I wonder if he would do it again."

"No one would ask him to do that again."

I looked into the yellow eyes, wondering how much I saw and understood there, and how much I only imagined. "No one ever asks us," I said. "You never asked me."

She moved her head slightly. "What's the matter with your face?"

"Nothing. Nothing important." Human eyes probably wouldn't have noticed the swelling in the darkness. The only light was from one of the moons, shining through a window across the room.

"Did you use the rifle to shoot the achti?"

"Yes."

"And do you mean to use it to shoot me?"

I stared at her, outlined in moonlight—coiled, graceful body. "What does Terran blood taste like to you?"

She said nothing.

"What are you?" I whispered. "What are we to you?"

She lay still, rested her head on her topmost coil. "You know me as no other does," she said softly. "You must decide."

"That's what happened to my face," I told her.

"What?"

"Qui goaded me into deciding to do something. It didn't turn

out very well." I moved the gun slightly, brought the barrel up diagonally under my own chin. "At least it was a decision I made."

"As this will be."

"Ask me, Gatoi."

"For my children's lives?"

She would say something like that. She knew how to manipulate people, Terran and Tlic. But not this time.

"I don't want to be a host animal," I said. "Not even yours."

It took her a long time to answer. "We use almost no host animals these days," she said. "You know that."

"You use us."

"We do. We wait long years for you and teach you and join our families to yours." She moved restlessly. "You know you aren't animals to us."

I stared at her, saying nothing.

"The animals we once used began killing most of our eggs after implantation long before your ancestors arrived," she said softly. "You know these things, Gan. Because your people arrived, we are relearning what it means to be a healthy, thriving people. And your ancestors, fleeing from their homeworld, from their own kind who would have killed or enslaved them—they survived because of us. We saw them as people and gave them the Preserve when they still tried to kill us as worms."

At the word "Worms" I jumped. I couldn't help it, and she couldn't help noticing it.

"I see," she said quietly. "Would you really rather die than bear my young, Gan?"

I didn't answer.

"Shall I go to Xuan Hoa?"

"Yes!" Hoa wanted it. Let her have it. She hadn't had to watch Lomas. She'd be proud. . . . Not terrified.

T'Gatoi flowed off the table onto the floor, startling me almost too much.

"I'll sleep in Hoa's room tonight," she said. "And sometime tonight or in the morning, I'll tell her."

This was going too fast. My sister. Hoa had had almost as much to do with raising me as my mother. I was still close to her—not like Qui. She could want T'Gatoi and still love me.

"Wait! Gatoi!"

She looked back, then raised nearly half her length off the floor and turned it to face me. "These are adult things, Gan. This is my life, my family!"

"But she's . . . my sister."



"I have done what you demanded. I have asked you!"

"But—"

"It will be easier for Hoa. She has always expected to carry other lives inside her."

Human lives. Human young who would someday drink at her breasts, not at her veins.

I shook my head. "Don't do it to her, Gatoi." I was not Qui. It seemed I could become him, though, with no effort at all. I could make Xuan Hoa my shield. Would it be easier to know that red worms were growing in her flesh instead of mine?

"Don't do it to Hoa," I repeated.

She stared at me, utterly still.

I looked away, then back at her. "Do it to me."

I lowered the gun from my throat and she leaned forward to take it.

"No," I told her.

"It's the law," she said.

"Leave it for the family. One of them might use it to save my life someday."

She grasped the rifle barrel, but I wouldn't let go. I was pulled into a standing position over her.

"Leave it here!" I repeated. "If we're not your animals, if these are adult things, accept the risk. There is risk, Gatoi, in dealing with a partner."

It was clearly hard for her to let go of the rifle. A shudder went through her and she made a hissing sound of distress. It occurred to me that she was afraid. She was old enough to have seen what guns could do to people. Now her young and this gun would be together in the same house. She did not know about our other guns. In this dispute, they did not matter.

"I will implant the first egg tonight," she said as I put the gun away. "Do you hear, Gan?"

Why else had I been given a whole egg to eat while the rest of the family was left to share one? Why else had my mother kept looking at me as though I were going away from her, going where she could not follow? Did T'Gatoi imagine I hadn't known?

"I hear."

"Now!" I let her push me out of the kitchen, then walked ahead of her toward my bedroom. The sudden urgency in her voice sounded real. "You would have done it to Hoa tonight!" I accused.

"I must do it to someone tonight."

I stopped in spite of her urgency and stood in her way. "Don't you care who?"

She flowed around me and into my bedroom. I found her waiting on the couch we shared. There was nothing in Hoa's room that she could have used. She would have done it to Hoa on the floor. The thought of her doing it to Hoa at all disturbed me in a different way now, and I was suddenly angry.

Yet I undressed and lay down beside her. I knew what to do, what to expect. I had been told all my life. I felt the familiar sting, narcotic, mildly pleasant. Then the blind probing of her ovipositor. The puncture was painless, easy. So easy going in. She undulated slowly against me, her muscles forcing the egg from her body into mine. I held on to a pair of her limbs until I remembered Lomas holding her that way. Then I let go, moved inadvertently, and hurt her. She gave a low cry of pain and I expected to be caged at once within her limbs. When I wasn't, I held on to her again, feeling oddly ashamed.

"I'm sorry," I whispered.

She rubbed my shoulders with four of her limbs.

"Do you care?" I asked. "Do you care that it's me?"

She did not answer for some time. Finally, "You were the one making choices tonight, Gan. I made mine long ago."

"Would you have gone to Hoa?"

"Yes. How could I put my children into the care of one who hates them?"

"It wasn't . . . hate."

"I know what it was."

"I was afraid."

Silence.

"I still am." I could admit it to her here, now.

"But you came to me . . . to save Hoa."

"Yes." I leaned my forehead against her. She was cool velvet, deceptively soft. "And to keep you for myself," I said. It was so. I didn't understand it, but it was so.

She made a soft hum of contentment. "I couldn't believe I had made such a mistake with you," she said. "I chose you. I believed you had grown to choose me."

"I had, but . . ."

"Lomas."

"Yes."

"I have never known a Terran to see a birth and take it well. Qui has seen one, hasn't he?"

"Yes."

"Terrans should be protected from seeing."

I didn't like the sound of that—and I doubted that it was pos-



sible. "Not protected," I said. "Shown. Shown when we're young kids, and shown more than once. Gatoi, no Terran ever sees a birth that goes right. All we see is N'Tlic—pain and terror and maybe death."

She looked down at me. "It is a private thing. It has always been a private thing."

Her tone kept me from insisting—that and the knowledge that if she changed her mind, I might be the first public example. But I had planted the thought in her mind. Chances were it would grow, and eventually she would experiment.

"You won't see it again," she said. "I don't want you thinking any more about shooting me."

The small amount of fluid that came into me with her egg relaxed me as completely as a sterile egg would have, so that I could remember the rifle in my hands and my feelings of fear and revulsion, anger and despair. I could remember the feelings without reviving them. I could talk about them.

"I wouldn't have shot you," I said. "Not you." She had been taken from my father's flesh when he was my age.

"You could have," she insisted.

"Not you." She stood between us and her own people, protecting, interweaving.

"Would you have destroyed yourself?"

I moved carefully, uncomfortably. "I could have done that. I nearly did. That's Qui's 'away.' I wonder if he knows."

"What?"

I did not answer.

"You will live now."

"Yes." *Take care of her*, my mother used to say. Yes.

"I'm healthy and young," she said. "I won't leave you as Lomas was left—alone, N'Tlic. I'll take care of you." ●



# SOLUTION TO THE VALLEY OF LOST THINGS

The trick is based on modulo arithmetic. A number is said to be equal to  $n$  modulo  $k$  if  $n$  is the remainder when the number is divided by  $k$ . Clocks tell time by an arithmetic based on the modulus 12. Suppose you want to know where the hour hand will point 100 hours after 3 o'clock. Add 100 to 3, then divide 103 by 12 to get a remainder of 7. The hand will point to 7 because  $103 = 7 \pmod{12}$ .

Our card trick requires that the first word to be spelled have a number of letters equal to  $4 \pmod{5}$ . Thus the first word must have letters equal to a number in the sequence 4, 9, 14, . . . The second word must be of length  $3 \pmod{4}$ ; that is, any number in the sequence 3, 7, 11, . . . The third word must be  $2 \pmod{3}$  and the last word must be  $1 \pmod{2}$ . Thus the third word must have a length equal to any number in the sequence 2, 5, 8, 11, . . . , and the last word can be any word with an odd number of letters. Instead of names, you can present the trick by spelling LAST TWO CARDS MATCH, or some similar phrase.

A formal proof of why the trick works would be long and tedious. Perhaps you can see why it works by experimenting with two piles of face-up cards. Cutting the packet of ten cards does not disturb the cyclic order, so when you divide them in half, and turn one half over, one half will have its cards in the reverse order of the other. This reversal of order is essential. When you experiment with two face-up piles, you must be sure to reverse the order of cards in either pile. The cards in one pile are ABCDE, and those in the other pile are EDCBA.

For an interesting follow up on last November's puzzle, please turn to page 82.







art: Jonathan Loew

# VIEWPOINT

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# CLARIFYING CLARION

by Algis Budrys

Can you be taught to write science fiction? Should you be taught to write it? Algis Budrys, the noted science fiction writer, reviewer, and editor takes on these questions and others in the entertaining article that follows.

**E**ach summer, I go to Michigan State University, teach a week of the six-week Clarion SF Writing Workshop, and find that once again I've done a controversial thing.

Writing can't be taught, some of my SF-writing

colleagues declare. What they seem to mean is that writing shouldn't be taught systematically.

Meanwhile, the pages of *Asimov's*, *Analog*, *F&SF*, and the other magazines are filling up with stories by Clarion graduates and by graduates of workshops



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modeled on it. Hugo, Nebula, and other awards are being won by some of these people; they're also turning up as movie and TV script writers and in any number of writing-related jobs. But it can't be done, I'm soberly assured from time to time—and if it can be done, it's wrong.

Oddly enough, this seemingly inexplicable attitude makes a kind of sense. Basic writing skills, the rationale goes, are best assimilated when they're found out by trial and error. Why is this best? Because that's how most of the older writers in this field—and that includes me—think they broke in. And we all made it, didn't we?

Nobody can find the people who tried but didn't make it, so their potential vote on this question doesn't count.

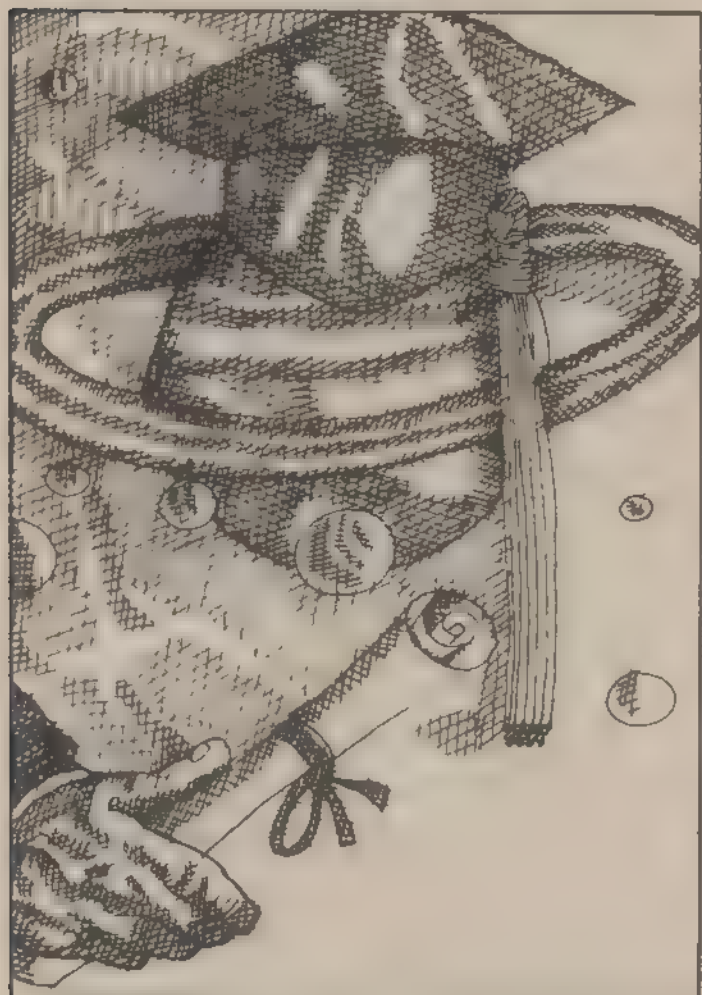
Of course, when you really look at it, there's hardly ever been a writer who wasn't in fact taught, more or less haphazardly, by grade-school and/or college teachers, by how-to publications, by mail-order enterprises, by helpful relatives, or by editors or

other writers. But because that process wasn't systematic and didn't entirely take place in a visibly instructional setting, it seems more "natural" in hindsight.

It certainly is more natural than the sometimes astonishing ideas some people have about what goes on at Clarion. But what actually goes on at Clarion is quite a bit like the old trial-and-error days, except it doesn't take as much time out of the apprentice writer's life.

It does take six weeks of total immersion. I think those weeks may well contain as many useful, varied, and intense learning experiences as ever attacked and formed the mind of an apprentice bouncing from editor to editor in the heyday of magazine pulp, when the streets of New York were paved with lore and any apt country boy could come in on the bus and be shown how to make a life on a penny per word.

Actually, writers have always taught themselves; there really is no other way. All the how-to materials the



"Talent can't be instilled. It can be identified, encouraged, and, perhaps, nurtured, but it pre-exists all those exterior polishings. If you have it, you at least suspect you do."

would-be writer is exposed to are materials this person went in search of, recognized, and gathered up as relevant to becoming a published writer. The basic process is one of reaching out and taking in, not of being stuffed.

Furthermore, talent can't be instilled. It can be identified, encouraged, and, perhaps, nurtured, but it pre-exists all those exterior polishings. If you have it, you at least suspect you do. That feeling for it provides your motivation to become a source of new stories, and is what keeps would-be writers going in the face of sometimes incredible adversity.

But what the would-be writer has to learn are all the skill-related things that make the difference between writing successfully and wanting to be a successful writer. That can, and almost inevitably does, take years, and thus can provide a hefty share of the adversity. Clarion, in its nearly twenty years, has evolved specifically to deal with all these circumstances.

It may come as a surprise to some readers—it certainly



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comes as a surprise to some literature teachers—that there is any creative skill, regarded as skill, in writing. Compositional skill, yes—everybody knows you have to get your paragraphs and things into some kind of order. But many people think all writing, or at least all Worthwhile writing . . . well, at the very least, the kind of writing they particularly like . . . is organized by sheer inspiration.

Inspiration is a fine, pure, and noble thing; most writing couldn't get done without it. The things we call "inspiration," "talent," and "artistic motivation" are probably all one actually indivisible thing, even among those of us to whom "art" is a distressing word. But they do not, of and by themselves, often produce stories in a form anyone else wants.

That's an unfortunate fact, but, in fact, it's one that all beginning writers recognize almost as soon as they begin, even if they may have their own terms to describe what's happening. Certainly every person moved to communicate

with others is familiar with the cold-sweat feel of failing communication. The first stories you tell don't have the desired effect. People will usually express some reaction indicating you've hit part of the target, but it's glaringly clear that they don't feel about this story the way you did when you thought of it. Shamefacedly, looking at it written down, you don't feel all that much communicated-with either.

This is because the idea for a story and the manuscript for a story are written in two different languages. Large parts of an idea—you can call it inspiration, or you can call it synthesis, but whatever you call it, it's a terrific feeling when it hits squarely—are nonverbal. Even when you're struck by an idea for a scene involving plenty of dialogue, you very rarely get specific words as distinguished from concepts. And narrative passages don't usually come to you as descriptive essays, but as multimedia outbursts in which singing, shouting people propel themselves through a context of dramatic

places for passionate reasons, and do it all at once. That's not to say writers don't get specific ideas for sharp-edged bundles of surgically precise words: for effective dialogue, or brilliant exposition. But that usually happens after you've started "working" on the idea—that is, translating it into English.

I don't know the name of the language we translate from; I do know it's been spoken, all over the world, from the beginning. But only inside individual heads; lacking telepathy, when we want to speak to others we have to communicate all those magically interleaved images through some sort of medium. Writers "write"—that is, those of us who become gripped by these un verbal fragilities in our heads must then code them down as letters in a straight line of words before anyone else can share their flowering.

That's the hard part; we realize it's the hard part, and that's what sends us off on our round of reading how-to-write essays, of joining "writing clubs" in which we support

and encourage and try to teach each other, of learning a whole vocabulary full of terms like "plot," "conflict," "suspension of disbelief," etc., etc., and of scanning rejection slips for even the faintest clue as to what we're doing wrong. It's agony. It can take years, and perhaps forever, to gather up enough skills to reach the point where the pictures in our heads can be translated into words that in turn make pictures in readers' heads. And yet it all had seemed so simple when it first began as something that somehow, often unbidden, made people in our heads breathe for love.

Time passes. The day comes when you see you have to take the next step. Either the promise is going to find the expression you want for it, or it's not. People have begun regularly admiring your talent—and so have you—but not enough has happened. You have to make something happen.

For some people who go through Clarion, the next step is full-fledged professional attainment. For others, it may



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be learning they'd rather do something else with literature. And every so often, somebody realizes they don't want to be in any way involved with writing at all. How might you feel about it? Here's a sketch of what happens:

First of all, you make a definite commitment. Deciding you're going to do it is in many ways like getting on the bus out of your life. You apply and are accepted, you pay for your tuition, room and board, and you take six weeks out of your life. That's a lot of bridge-crossing.

It's six weeks of nothing else. Even on forays into town for a movie, some bookstore browsing, some of the good restaurants and some of the bad, the back of your mind will be thinking constantly about writing and you as a writer, and the front of your mind will usually be aware of it.

Costs for nonresidents of Michigan run up over \$1200 plus round-trip transportation. Everybody wishes it could be less, and there is a (very) little scholarship money, but

you can't count on it when reaching your decision. At a horseback guess, with the bus ticket and some money for incidentals, you're committing yourself to \$2000. And the future.

The only way to get in is on merit. You're trying to be one of no more than twenty-five students; ideally, classes try to be a few less than that.

You begin by writing to Clarion for an application. The address is:

Clarion Writing Workshop  
Attn. Mary Sheridan,  
Lyman Briggs School  
Holmes Hall

Michigan State University  
East Lansing, MI 48824

(If you are reading this before the end of May 1984, there is still time to apply for this year's workshop.)

You fill that out and return it, with a short story; if the story's good enough, and if you applied before the class filled up, you'll be offered a slot and a limited time to accept it. Once you accept it, it's hard to turn back.

You arrive in East Lansing, Michigan, on the last weekend of June. In 1984, the Clarion

dates are Monday, July 2, through Friday, August 10. But things begin the Sunday evening of your arrival.

Clarion attendance is good for undergraduate and graduate college credit, and Clarion is thus administered by MSU just like many other summer seminars, at all educational levels, that will be going on in other parts of the university. When you arrive, you'll be contacted by MSU's workshop director. For 1984, he's R. Glenn Wright, an able SF academic and veteran of Clarions past. This year he's working with an all-veteran slate of instructors.

There will be six such "visiting writers"; one a week. The first of these people, together with Professor Wright, will spend several hours taking care of things like your orientation to the sprawling and multifaceted MSU campus, the Clarion ground rules, and anything else you want to know, except writing. The sessions about writing start at nine in the morning, and happen every morning Monday through Friday, nine 'til something a

little short of one o'clock. At first this seems like an easily done routine.

Each of the six visiting writers is someone chosen for professional credentials and for balance with the rest of the faculty. Kate Wilhelm and Damon Knight always teach the last two weeks. Robin Scott Wilson, a laid-back but spritely gent who founded the workshop in 1968 at Clarion State College in Pennsylvania, usually teaches the first week. I've been there since 1977; I teach one of the middle weeks unless Robin can't make it—he's president of a California college these days.

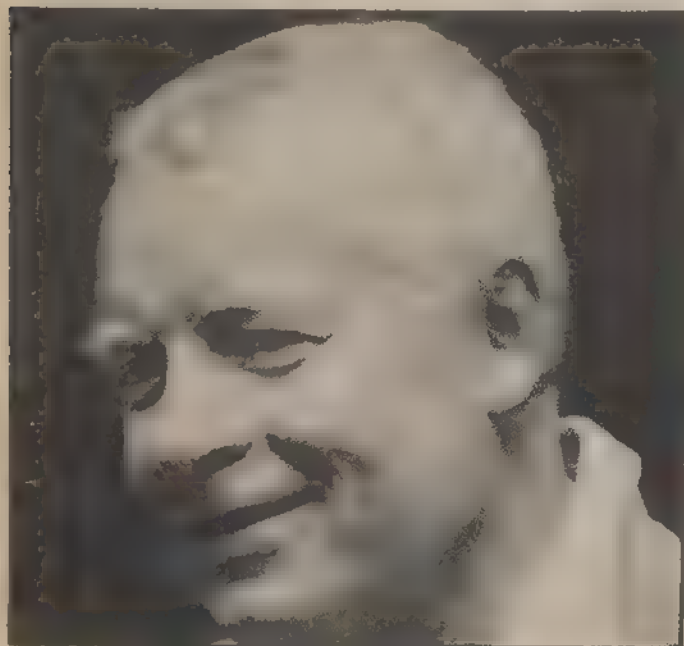
Kate and Damon and he and I disagree on any number of conceptual things about writing, as we should, but we're solid fellow fundamentalists when it comes to the importance of nuts-and-bolts storytelling technique. On the third hand, we normally write rather different sorts of things, and on the fourth we have various differences in background and in career orientation.

The other two writers will



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Photo: Jay Kay Klein



"Clarion workshopping is far from sitting around in a circle and saying 'I liked it . . . I didn't like it.' What's wanted is hard, sharp, analytical dissection. The purpose is to start the students thinking like editors and/or professional writers, because the major difference between the gifted amateur and the successful pro is the ability to precisely identify the parts of any story and describe how they are or aren't working together to create a desired effect."

further broaden the spectrum. In 1984, they'll be Harlan Ellison and Elizabeth A. Lynn. Some years, some of the visiting writers will be Clarion graduates. And everybody gets chosen for the ability to teach.

What do we teach? Well, I can't answer that. I can tell you what I try to teach, and what we talk about, and what people in general over the years seem to have taken in:

The mainstay of Clarion is the workshopping. Everybody has to register useful comments on what everybody else has written; everybody has to take criticism of his or her work, and everybody gets a chance to defend it (but sometimes not much). This begins as soon as the students arrive. They get Xeroxes of manuscripts selected from among the successful application stories. Then, first thing the first Monday morning, the visiting writer will do a verbal outline of what he thinks the interacting elements of a story are, and how they combine to produce the effects people look for in stories. That's then

followed by the first workshop session, which is devoted to learning how to comment on fiction, using the application stories.

Clarion workshopping is far from sitting around in a circle and saying "I liked it . . . I didn't like it." That sort of mushy reaction is very nearly useless; what's wanted is hard, sharp, analytical dissection. The purpose is to start the students thinking like editors and/or professional writers, because the major difference between the gifted amateur and the successful pro is the ability to precisely identify the parts of any story and describe how they are or aren't working together to create a desired effect.

As soon as possible, we move from old stories sent from home to new ones written at Clarion. As students begin trying to apply what they pick up in workshopping or in the visiting writers' lectures, the sound of typewriters—and, lately, of an increasing number of word-processors—begins to dominate the Clarion dorm

hallway. Some visiting writers assign specific exercises, as well. Whatever, it's very difficult at Clarion not to spend a lot of time at the typewriter, trying hard to get a piece finished in time for the next day's photocopying deadline.

There's constant feedback. That's the thing Clarion does that can't possibly be done in a conventional class or occasional workshop. Ideas don't have time to get stale. As soon as a student tries something new, it can be workshopped; there'll be twenty sets of student reactions to it, plus the comments of the faculty director and the visiting writer. Whatever it is—a purely creative idea generated by constant exposure to an atmosphere of ideas, or a technical experiment prompted by something from a visiting writer's lecture or a workshop comment—it can be tried out quickly.

The comment it gets back will be direct, functionally relevant, and delivered before the idea gets cold. Living out in Dorothy, New Jersey, or



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attending a class that meets for ninety minutes twice a week, you can't get that. When New York City housed a plethora of short-story markets and a besieging army of trained professional writers and editors, you could get something like that by moving in the right circles. But that was in another continuum, and besides, the pulps are dead.

Clarion-like workshops are the only place left to get quick, positive reinforcement of the inevitable trials and errors. Even if a particular visiting writer depends heavily on lectures, to add to his or her comments in the workshop, they're still not dealt-out to a passively note-taking audience. Nobody's there just to get a passing grade, and every assertion is apt to be challenged and to require a defense at the first opportunity during breaks, over lunch, or in the afternoon or evening.

We all live in each other's pockets. The visiting writers have their own apartment, but it houses the community refrigerator and, almost

without fail, the community bullsession. Theoretically, we all get together only those five mornings per week, but actually we're all in almost constant contact with each other. A great deal of less-than-formal instruction goes on in anecdotes about how editors and publishers are, about what pro writers have done with, for, and to their opportunities in the world of fiction, and about what the bishop said to the actress at the Philadelphia World SF Convention in 1947.

The effect of all that is really quite rational. Even if one visiting writer tried to get the students to all write one particular kind of thing in one particular way, the net effect of Clarion is to swamp any such dogmatic position. What the students see is what six very different qualified people think is vital to writing. They also hear what these people recall from their own formative years, and what they think is important among all the sidelights they could anecdotally cast on writing seen as a way of life.

In a very real sense, the net effect of Clarion is to show, not tell.

No one can know exactly what the students make of the data they reach out for and accept; as with all other writers, all anyone ever sees is the resulting output of words, while the new inner edifices might be made of I-beams, might be made of moonbeams, and certainly no two will ever have the same ground-plan.

Meanwhile, as the talk about writing and the writer's life proceeds, and the weeks roll on, massive accelerated changes are taking place in the students. Exploring an art requires exploring a great deal about yourself. By the

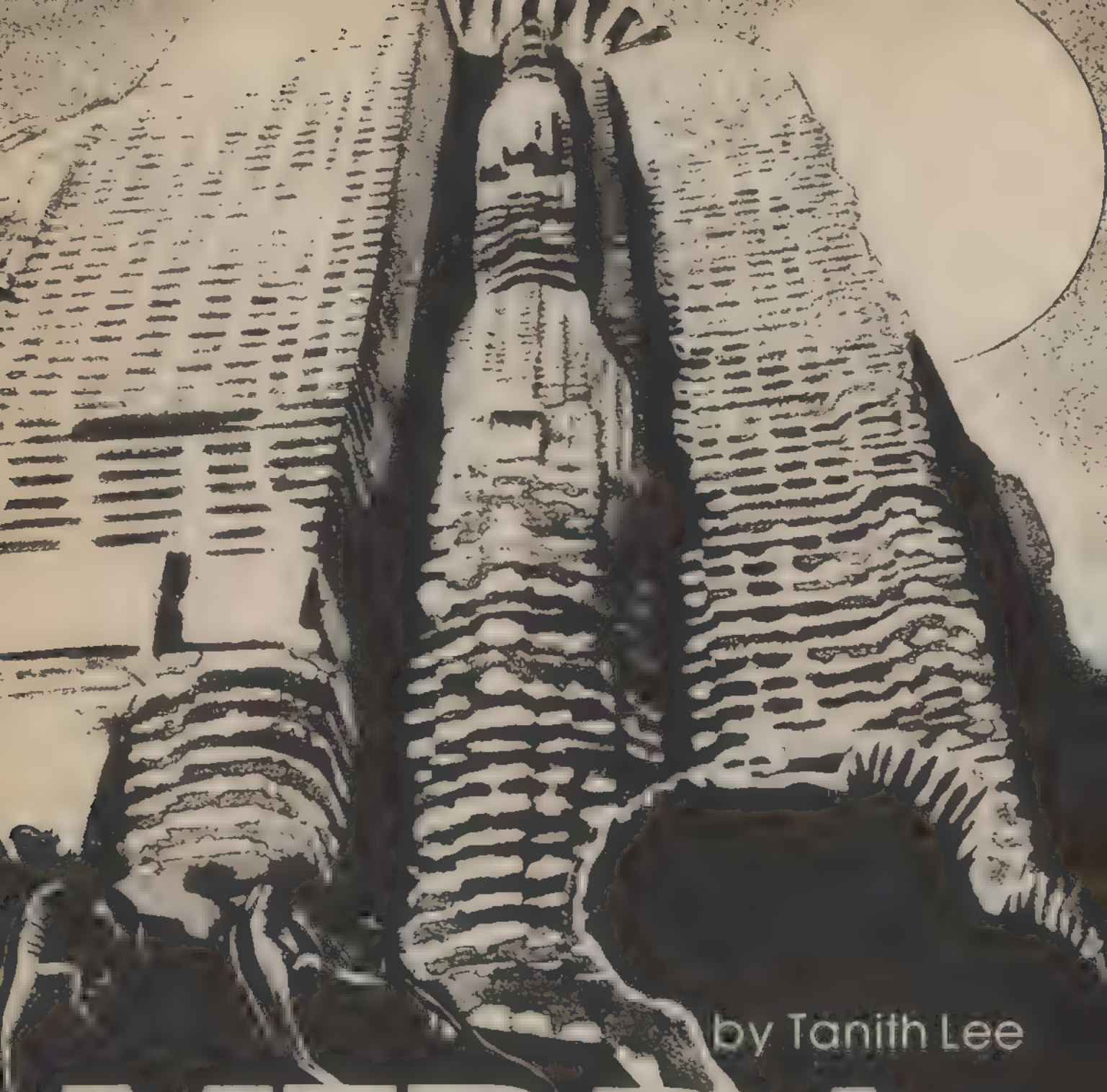
time of the farewell party—an event whose dimensions and amplitude usually compare with the furlough that marks the end of Basic Training—it will be hard for you to ever remember how you used to be.

The exact nature of how you are now may also be difficult to determine for a while. It takes decompression to come down from Clarion, and in addition to the actual six weeks you'll want to allow for extra time to sort it out in your head. But one thing's certain: there's a lot more in there to work with than there was.

So, can you do it—can you teach SF writing? I don't know. You *can* teach SF writers. Should you do it? What else is doing it? ●







by Tanith Lee

# MEDRA

art: Val Lindahn

The author returns to our pages with another story about love. Unlike the mysterious *Indian setting of "Chand Veda" (Asim Oct 1981)* or the fantasy world of *"Reine Blanche" (Asim July 1983)*, this one's set on a distant planet, and comes with spaceships, a secret weapon, and a romantic adventurer.

At the heart of a deserted and partly ruined city, an old hotel rose up eighty-nine stories into the clear sunset air. The hotel was not necessarily the tallest structure left in the city. It had been a very modern metropolis; many of its buildings were of great height. But it had happened that several of the blocks surrounding the hotel plaza had fallen, for one reason or another. Now the tiered, white architecture, like a colossal wedding cake, was visible from almost any vantage of the city, and from miles away, across the dusty dry plains of the planet beyond, the hotel could be seen.

This planet's sunset took a number of hours, and was quite beautiful. The hotel seemed softened in the filmy, rosy light. Its garlands and sprays of ornamentation, long-blunted by the wind, had over the years become the nesting-places of large climbing lizards. During the hours of sunfall, they would emerge, crawling up and down the stem of the building, past the empty windows behind which lay empty rooms. Their armor blinked gold, their gargoyle faces stared away over the vistas of the city whose tall abandoned blocks flashed goldenly back at them. The big lizards were not foolish enough to mistake these sky-scrapers for anything alive. The only live thing, aside from themselves and occasional white skeletal birds which flew over, lived on the eighty-ninth floor. Sometimes, the lizards saw the live thing moving about inside two layers of glass, and sometimes the throb of machineries, or music, ran down the limb of the hotel, so the stones trembled, and the lizards, clinging, trembled, listening with their fan-like swivelled ears.

Medra lived on the eighty-ninth floor. Through the glass portals she was frequently visible—a young Earth woman, by appearance, with coal-black hair that fell to her waist. She had a classical look, a look of calmness and restraint. Much of the day, and often for long intervals of the night, she would sit or lie perfectly still. She would not seem to move, not the flicker of a finger or quiver of an eyelid. It was just possible, after intense study, to see her breathing.

At such times, which actually occupied her on an average for perhaps twenty-seven hours in every thirty-six-hour diurnal-nocturnal planetary period, Medra—lying motionless—experienced curious mental states. She would, mentally, travel a multiplicity of geographies, physical and non-physical, over mountains, under oceans, even across and among galaxies. Through the flaming peripheries of stars she had passed, and through the cold reaches



of a space where the last worlds hung tiny as specks of moisture on the window-panes of her rooms. Endless varieties of creatures came and went on the paths of Medra's cerebral journeys. Creatures of landscape, waterscape, airescape, and of the gaplands between the suns. Cities and other tumuli evolved and disappeared as simply as the forests and cultivation which ran towards her and away. She had a sense that all these visions concerned and incorporated her. That she wove something into them, from herself, if she did not actually form them, and so was a part of her own weaving, and of them. She threaded them all with love, lacking any fear, and when they drifted behind her she knew a moment's pang of gentle loss. But solely for that moment. It was only when she "woke" that Medra felt a true bereavement.

Her eyes would open. She would look around her. She would presently get up and walk about her apartment, which the hotel mechanisms kept for her scrupulously.

All the rooms were comfortable, and two or three were elegant. A hot-house with stained-glass walls projected from one side of the building. Enormous plants bloomed and fruited. There was a bathroom with a sunken bath of marble, in which it was feasible to swim. The literature and music, the art and theatre of many worlds were plenteously represented. At the touch of a button, food of exquisite quality—in its day, the hotel had been renowned through twenty solar systems—would be served to Medra from out of the depths below.

She herself never went downstairs. Years ago, now and then, she had done so. She had walked the dusty riverbeds of the streets, or, getting into one of the small hover-cars, gone gliding between the walls, past the blank windows, over the bridges—and back again. At night, she had sat eighty-nine floors down on the hotel's decorated porch, sipping coffee or sherbet. The planet's stars were lustrous and thickly scattered. Slaves to their generators, a few lights still quickened in the city when sunset faded. She did not trouble to pretend that any life went on in those distant lighted buildings. Sometimes one of the lizards would steal up to her. They were very cautious, despite their size. She caressed those that came close enough and would allow it. But the lizards did not need her and, "waking," she did not understand them.

In recent years, she stayed at the top of her tower. There was no purpose in leaving her apartment. She accepted this.

But every so often, "waking," opening her eyes, sensing loss, she wept. She was alone and lonely. She felt the pain of it always, although always differently—sharp as a razor, insistent as a

needle, dull as a healing bruise. "I'm alone," she said. Looking out from the balconied heights, she saw the lizards moving endlessly up and down. She saw the city and the dust haze far off which marked the plains beyond. The weaving of her dreams was her solace. But not enough.

"Alone," said Medra in a soft, tragic voice. She turned her back to the window.

And so missed a new golden spark that dazzled wildly over the sunset air, and the white feather of vapor which followed it down.

Jaxon landed his shuttle about half a mile from the city's outskirts. He emerged into the long sunset fully armed and, from force of habit, set the vessel's monitors on defensive. There was, almost certainly, nothing to defend against, out here. The planet had been thoroughly scanned by the mother-ship on the way in.

Jaxon began to stroll down to the city. He was an adventurer who would work for hire if the pay was good. What had tempted him to this outcast place, well-removed from the pioneer worlds and trade routes that generally supplied his living, was the connivance of a freelance captain whose ship now hung overhead. They had met in some dive on the rim of Lyra, Jaxon a figure of gold as he always was, but gold somewhat spoiled by the bloody nose and black eye gained at an adjacent fight.

"So thanks for saving my skin. What do you want?" The captain showed him an old star-map and indicated a planet. "Why?" said Jaxon. The captain explained. It was, at that juncture, only a story, but stories sometimes led to facts. It would seem that a century before, a machine of colossal energy had been secreted on this small world. The planetary colony was promptly evacuated on the excuse of unstabilized earthquake activity. A whole city was abandoned. No one went there any more. Out of bounds and off the current maps, the planet had by now been overlooked, forgotten. Only the story of the machine remained, and finally surfaced.

Very well, Jaxon would assume the captain wished that someone (Jaxon) would investigate. What capacity did the hidden machine have? There must be safeguards on it, which were? "It's presumably a war-machine. That's why it's been dumped. Whoever gets hold of it will be able to call the shots." ("Oh, nice," said Jaxon sarcastically, bleeding in his free drink.) "On the other hand, it may be nothing. But we'd like to follow the rumor up, without sticking our necks out too far."

"So you want to stick my neck out too far instead." The captain



detailed the fee. Jaxon thought about it. It was not until he was aboard the ship that he asked again: "You still haven't given me specific answers to my two specific questions. What does this machine do? How's it protected?"

"All right. This is apocryphal, maybe. I heard it's an unraveller." Which was the slang name for something that had been a nightmare for decades, was condemned by all solar and galactic governments, could not, in any case, exist.

Jaxon said, "By which we're talking about a Matter-Displacement-Destructor?"

"Yes. And here's the punchline. Be ready to laugh. The only safeguard on the damn thing is one lone woman in a white hotel."

Legends abounded in space, birthed in bars and backlands, carried like seeds by the crazier shipping, planted in fertile minds, normally born to be nothing. But Jaxon, who had scented something frenetic behind the deal, was ultimately granted the whole truth. The freelance captain was a ruse. The entire run was government based, the mission—to find and destroy that machine, if it existed. Anything else was a cover. A quasi-pirate on a joy-ride, a notorious adventurer looking for computer treasure—that was all it was to be. If the powers who had hidden the machine learned its fate and made a fuss, the event must fail to become a galactic confrontation. You didn't go to war because you'd been ripped off by a cat-burglar.

"Alternatively, someone may pulverize the cat-burglar."

"Or it may all be nothing. Tall stories. Lies. A storm in a teacup."

"You ever seen a storm in a teacup?" asked Jaxon. "I did, once. A trick some character pulled in a bar one night. It made a hell of a mess of the bar."

As he entered the city, framed between the sky-touching pylons of the bridge Jaxon saw the hotel.

He stood and looked at it, and thought about the idea of one woman guarding there an MDD chaos device that could literally claw the fabric of everything—planets, suns, space itself—apart. If any of it were so, she would have to be a robot, or robo-android. He had a scanner of his own, concealed in the plain gold ring he always wore. This would tell him exactly what she was, if she existed, from a distance of three hundred feet.

One of the hover-cars swam by. Jaxon hailed it and got in. It carried him swiftly towards the eccentric old hotel. At two hundred feet, Jaxon consulted the ring. It told him promptly the woman did indeed exist and, as expected, exactly what she was.

Her name had been planet-registered in the past; it was Medra. She was not a robot, an android, or even (present analysis) biologically tampered with. She was a young woman. She had black springing hair, pale amber skin, dark amber eyes. She weighed—"Just wait," said Jaxon. "More important, what about implants?" But there were no implants. The car was now only thirty feet from the building, and rising smoothly as an elevator up the floors, sixty, sixty-nine, seventy—"Check again," said Jaxon. The lizards glared at him with bulging eyes as he passed them, but he had already checked those—there were over two thousand of them dwelling in and on the building. They were saurian, unaggressive, obliquely intelligent, harmless, and non-mechanic. A bird flew over, a couple of hundred feet up. "And check *that*," snapped Jaxon, scowling at the lizards. But it was only a bird.

Seventy-nine, eighty, eighty-nine—And the car stopped.

Jaxon beheld the woman called Medra. She was standing at a window, gazing out at him through a double thickness of glass. Her eyes were glorious, and wide.

Jaxon leaned forward, smiling, and mouthed: *Can I come in?*

He was made of gold. Golden skin, yellow-golden eyes, golden fleece of hair. The semi-uniform he wore was also of a tawny gleaming material. He seemed to blind what looked at him.

Medra retreated from the window and pressed the switch which let up the pressurized bubble over the balcony. The man stepped gracefully from the car to the balustrade and over. The bubble closed down again. Medra thought, should she leave him there, trapped and safe, an interesting specimen? But his presence was too powerful, and besides the inner glass was rather fragile and might be broken. She permitted the pane to rise, and golden Jaxon walked through into her room.

The selection of opening gambits was diverse. He had already decided what would be the most effective.

"Good evening," said Jaxon. "I gather the name by which you know yourself is Medra, M-E-D-R-A. Mine is usually Jaxon, J-A-X-O-N. I have been called other things. Your suite is charming. Is the service still good here? I'll bet it is. And the climate must be pleasant. How do you get on with the lizards?" He moved forward as he spoke. The woman did not back away. She met his eyes and waited. He paused when he was a couple of feet from her. "And the machine," he said, "where is that?"



She said, "Which machine? There are several."

"Now, you know which machine. Not the machine that makes the bed or tosses the salad or puts the music on. Not the city computer that keeps the cars running, or the generators that work the lights in the stores."

"There's nothing else," she said.

"Yes there is. Or why are you here?"

"Why am I—?" She looked at him in astonishment.

All this time the ring was sending its tiny impulses through his skin, his finger joint, messages he had long ago learned to read quickly and imperceptibly. She is not lying. She is shocked by this arrival and so reacting unemotionally; presently emotion will break through. Her pulse ticks at this and this, rising now, faster. But she is not lying. (Brain-handled, then, not to know?) Possibly. Pulse rising, faster, and faster.

"—I'm here," she said, she gave a shaken little laugh, "because I stayed behind. That's all. The planet's core is unstable. We were told to leave. But I elected—to stay here. I was born here, you see. And all my family died here. My father was the architect who designed the hotel. I grew up in the hotel. When the ships lifted off I didn't go with them. There was nowhere else to go to. Nowhere else, no one else . . . How eccentric, to want to remain. But the earthquake activity—it's not so dangerous as they said. A few mild tremors. The hotel is stabilized, although the other buildings sometimes—Only six months ago, one of the blocks across the plaza collapsed—a column of dust going up for half an hour. I'm talking too much," she said. "I haven't seen another human being for—I can't remember—I suppose—ten years?" The last was a question, as if he knew better than she and would tell her. She put her hands over her eyes and began to fall very slowly forwards. Jaxon caught her, and held her as she lay in his arms weeping. (No lies. Valid. Emotional impulse verified: The ring stung and tickled its information through to him.) It was also a long time for him, since he had held any woman *this* way. He savored it abstractedly, his thoughts already tracking in other directions, after other deductions. As if in the distance he took pleasure in the warm scent of her, the softness of her dark witch's hair; pleasure in comforting her.

## II

There was time, all the time a world could give. For once, no one and nothing urging him to hurry. The only necessity was to

be sure. And from the beginning he was sure enough, it was only a matter of proving that sureness, being certain of a certainty. Aside from the miniaturized gadgets he always carried with him, there were his own well-tuned senses. Jaxon knew, inside ten minutes, that there was nothing here remotely resembling the powerful technology of a fabled MDD. In other words, no key to nemesis. The government ship continued to cruise and to scan far overhead, tracking the hollows of the hills, the deep places underground, the planet's natural penthouses and basements. And he, striding through the city, riding through it in the ever-ready little cars, picked up no resonance of anything.

Yet, there was something. Something strange, which did not fit.

Or was that only his excuse for remaining here a fraction longer?

The first evening, as the sunset began at last to dissolve in night, she had said to him, "You're here, I don't know why. I don't understand you at all. But we'll have champagne. We'll open the ballroom." And when he grimaced with amusement she said, "Oh, be kind to us. Be kind to the hotel. It's pining for a guest."

And it was true, the hotel came alive at the touch of switches. It groomed and readied itself and put on a jewelry of lights. In the ballroom, they ate off the fine service, every plate, cup, napkin and knife printed and embossed with the hotel's blazon. They drank from crystal goblets, and danced, on the crystal floor, the lazy sinuous contemporary dances of ten years ago, while music played down on them like a fountain. Sophisticated beyond his self-appointed station, Jaxon was not embarrassed or at a loss with any of this. Medra became a child again, or a very young girl. This had been her physical youth, which was happy, before—before the outsiders had come with their warnings, the death of the city, the going away of the ships and of everything.

But she was not a child. And though in her way she had the innocence of a very young girl, she was still a woman, moving against him when they danced, brushed by sequins from the lights. He was mostly accustomed to another kind of woman, hard, wise, sometimes even intellectual, the casual courtings, makings, and foregone departures amid the liquor-palaces he frequented on-planet, or in the great liners of deep space. This does not mean he had only ever known such women as these. There had been love affairs once or twice—that is, affairs of love. And Medra, her clever mind and her sweetness coming alive through the stimulus of this proximity—he was not immune to any of that. Nor to the



obvious fact that, with a sort of primal cunning, she had trusted him, since she could do nothing else.

And for Medra? She fell in love with him the moment she saw him. It was inevitable, and she, recognizing the cliché and the truth which underlay the cliché, and not being a fool, did not deny it.

After the first night, a first date, waited on and worshipped by the reborn glory of the hotel, they parted, went each to an allotted suite of rooms. As Jaxon revelled like a golden shark in the great bathroom, drew forth old brandies and elixirs from cabinets, eventually set up the miniaturized communicator and made contact with the ship, reporting nothing—as all this occurred, Medra lay on her bed, still clothed in her dancing dress, dreaming awake. The waking dream seemed superior to any other dream of stars and oceans and altitudes. The man who had entered her world—her planet, the planet of her awareness—he was now star, sun, ocean, and high sky-held peak. When she fell asleep, she merely slept, and in her sleep, dreamed of him.

Then the days began, extended warm days. Picnics in the ruins, where the dust made both carpet and parasol. Or lunches in the small number of restaurants which would respond, like the hotel, to a human request. Together, they walked the city, explored its emptied libraries, occasionally finding some taped or crated masterpiece, which in the turmoil of evacuation had been overlooked. In the stores, the mannequins, the solar cadillacs, had combined to form curious sculptures of mutation.

Jaxon accompanied her everywhere, testing, on the lookout, alert for anything that would indicate the presence of the item he sought, or had come seeking. But the other level of him was totally aware of Medra. She was no longer in the distance. Every day she moved nearer. The search had become a backdrop, a prelude.

Medra wandered through the abandoned city, refinding it. She was full of pity and nostalgia. She had come to realize she would be going away. Although nothing had been said, she knew that when he left he would take her with him.

The nights were warm, but with a cooler, more fragrant warmth. The lizards came into the lighted plaza before the hotel, staring, their ears raised and opened like odd flowers. They fed from Medra's hands, not because they needed to, but because they recognized her, and she offered them food. It was almost a tradition between them. They enjoyed, but did not require the adventure. Jaxon they avoided.

Medra and Jaxon patrolled the nighttime city. (A beacon, the hotel glowed from many vantages.) In other high places, the soft wind blowing between them and the star-encrusted dark, he would put his arm around her and she would lean on him. He told her something of his life. He told her things that generally he entrusted to no one. Black things. Things he accepted in himself but took no pride in. He was testing her again, seeing now how she would respond to these facts; she did not dismiss them, she did not grow horrified and shut them out. She was coming to understand him after all, through love. He knew she loved him. It was not a matter of indifference to him. It crossed his mind he would not leave her here when he left the planet. In some other place, less rarified than this one, they would be far better able, each of them, to judge what was between them.

In the end, one night, travelling together in the elevator up towards the top floors of the hotel, Jaxon told her this: "The business I had here is settled. I'm leaving tomorrow."

Although she knew he would not go without her, even so she thought in this instant that of course he would go without her.

"I shall turn out all the lights," she said simply. "As your ship takes you away, you'll see a shadow spread across the city."

"You can watch that too," he said. "There's plenty of room in a shuttle for both of us. Unless you want to bring any of those damn lizards along."

The ritual completed, they moved together, not any more to comfort, or to dance. Not as a test. He kissed her, and she returned his kiss.

They reached the eighty-ninth floor, and went into her apartment. On the bed where she had slept, and wandered among galaxies, slept and dreamed of him, they made love. About the bright whirlwind of this act, the city stood still as a stopped clock. The hotel was just a pillar of fire, with fiery gargoyles hotly frozen on its sides, and one solitary nova burning on the eighty-ninth floor.

### III

A couple of hours before sunrise, Jaxon left his lover, Medra, sleeping. He returned to his rooms on the seventy-fourth floor and operated the communicator. He gave details to the mother-ship of his time of return. He told the government officer who manned the intercom that there would be a passenger on the shuttle. The officer was open-faced and noncommittal of tone, not



discouraging. "She's the last of the colony," said Jaxon, reasonably, insidiously threatening. There would be no trouble over it. The story of the MDD had been run to ground and could be exploded. Spirits would be high, and Jaxon in favor. Maybe rich, for a short while. She would like that, the harmony money would produce for her, not the raw essentials of cash. . . .

Having switched off and dismantled the communicator into its compact travelling form, Jaxon lay back on his bed. He thought about the woman fifteen stories above him, five minutes away. He thought about her as noncommittally and easily as the young man on the ship's bridge. But nevertheless, or perhaps sequentially, a wave of desire came in on him. Jaxon was about to leave the bed and go back to her, when he heard the door open and a whisper of silk. Medra had come to him.

She walked towards him slowly. Her face was very serious and composed. In the dimness of the one low lamp he had kept alight, her black hair gathered up the shadows and draped her with them. She was, no less than he, like a figure from a myth. No less than he. More so than he. And then he saw—with a start of adrenalin that brought him to his feet—that the one low lamp was shining *through* her.

"What," he said, putting his hand to the small gun by the bed—uselessly—"is going on? A real ghost, or just an inefficient hologram? Where are you really, Medra? If you *are* Medra."

"Yes," she said. The voice was exactly hers, the same voice which, a handful of hours ago, had answered his in passion and insistence. "I'm Medra. Truly Medra. Not a hologram. I must approximate. Will you countenance an astral projection—the subconscious, free of the body?"

"Oh, fine. And the body? Let's not forget that. I'm rather fond of your body, Medra. Where is it?"

"Upstairs. Asleep. Very deeply asleep. A form of ultra-sleep it's well used to."

"If you're playing some game, why not tell me the rules?"

"Yes, I know how dangerous you are. *I* know, better than I do, that is, my physical self. I'm sorry," the translucent image of Medra said to him, most politely. "It can only be done this way. Please listen. You'll find that you do grasp everything I say to you. On some level, you've known all the time. The inner mind is always stronger and more resilient than the thinking process we have, desperately, termed the brain."

He sat down on the bed again. He allowed her to go on. At some point, he let the gun slide from his hand.

Afterwards, for the brief while that he remembered, he seemed to have heard everything in her voice, a conversation or dialogue. It was not improbable that she had hypnotized him in some manner, an aid to his acceptance.

She understood (*she*, this essence of Medra), why he had come to the planet, and the nature of the machine he had been pursuing. The legend of an MDD was merely that. Such a device did not, anywhere, exist. However, the story had its roots in a fact far more ambivalent and interesting. The enormous structure of the universe, like any vast tapestry, rubbed and used and much plundered, had come with the centuries to contain particular areas of weakness. In such spots, the warp and woof began to fray, to come apart—*fundamentally*. Rather than a mechanical destruction which could be caused to engender calamity, the macrocosm itself, wearing thin, created calamity spontaneously. Of course, this giving way of atoms was a threat both local and, in the long term, all-encompassing. A running tear in such a fabric—there could be only one solution. That every rent be mended, and thereafter monitored, watchfully held together; for eternity, if need be. Or at least until the last sentient life of the physical universe was done with it.

"You must picture then," she said, "guardians. Those who will remain at their posts for all time, as time is known to us. Guardians who, by a vast mathematical and esoteric weaving, constantly repair and strengthen the tissue of cosmic life. No, they are not computers. What upholds a living thing must itself be *alive*. We are of many galactic races. We guard many gates. This planet is one such gate, and I am one such guardian."

"You're a woman, an Earth woman," he recalled saying.

"Yes. I was born here, in the Terran colony, the daughter of an architect who designed one of the most glamorous hotels in twenty systems. When they came—those who search out the guardians are also sentient creatures, of course—they discovered that my brain, my intellectual processes, were suitable for this task. So they trained me. Here is one more reality: Extended to its full range, the mind of a human being is greater, more complex, capable of more astounding feats, than any mechanism mankind has or will ever design. *I* am the computer you searched for, Jaxon. Not a force of chaos, but a blueprint for renewal and safety. For this reason I remained, for this reason I always must remain. Those who were evacuated were given a memory, a whole table of excellent reasons for leaving. You, also, will be given a reason.



I will give it to you. There'll be no regrets. Despite all the joy you've brought me."

"I didn't arrive here alone," he said. "The sky up there is full of suspicious characters who may not believe—"

"Yes. They'll believe whatever you tell them. I've seen to it they will."

"Good God. So what are you? A human machine, the slave of some—"

"No slave. In the beginning I was offered a choice. I chose—this. But also to forget, as you will forget."

"You're still a woman, not—"

"Both. And yes, in her forgetfulness, sometimes the woman despairs and is bitterly sad. 'Awake,' she doesn't know what she is. Only 'sleeping,' she knows. Always to know, to know when 'awake,' carries implications of power I don't trust myself with. Occasional sadness is better."

"Perhaps I don't accept any of this."

"Yes," she said. "All of it. As always happens. Dear love, you're not the first to alleviate my physical loneliness. When the time is right, I call and I'm answered. Who do you think drew you here?"

He swore. She laughed.

She said, "Don't be appalled. This episode is full of charm and amusement. Thank you again, so very much. Good-bye."

And she was gone. Into the air. The opening of the door, the whisper of material, they had been reassurances, and a ploy. He told himself he had been tricked. His nerves rioted with an impression of traps and subterfuge, but then these instincts quietened and the sullen protests ceased. It must be as she had said, on some level he did know and had accepted. There had been a joke once, God's a woman—

He fell asleep, sitting on the bed.

Jaxon drove the shuttle up into the pure air of sunrise, then beyond the sunrise into the inky night of space. He left it all behind him, the planet, the city, the hotel, and the woman. He felt bad about leaving her, but he had foreseen the pit before his feet. Living as she had, she would be a little mad, and certainly more than a little dependent. There was no room in his life for that; he would not be able to deal with it. Her fey quality had delighted him, but it was no grounds for perpetuity. Eventually she would have clung and he would have sloughed her in anger. It might have been expressive anger at that, beyond a cruel word,

a cruel blow, and the hospitals were makeshift in the areas he most frequented. She wasn't for him, and it was better to finish on a note of pathos than in that kind of mess. Ships came by, she had told him. Someone else would rescue her, or not.

"Which woman?" he said to the captain of the mother-ship. "Fine. She didn't want to leave after all. Come on, you got what you wanted, I did your work for you. Now elaborate on the fee."

He had left her sleeping. Her hair had spread across the pillows, black breakers and rivulets of hair. Eyes like dark red amber closed by two petals of lids. He thought of the facades of empty buildings, the glitter of meaningless lights, the lizards who did not talk to her. He thought of the hot-house of colored glass. He had a memory of strange wild dreams she had mentioned to him, which took the place of life. She was a difficult woman, not a woman to be lived with, and if loved, only for a little while. *I am half sick of shadows*, she said to him now, in his mind's ear. But that was a line from some antique poem of Earth, wasn't it? Somehow he didn't believe the phantom words. Those shadows were very real for Medra.

In the deserted, partly ruined city, on the eighty-ninth floor of the white hotel, Medra wept.

She wept with a terrible hurt, with despair, in her anguish of loss. And with shame. For she had trusted and moved forward openly, without camouflage, and the blow had crashed against her, breaking her, crippling her—as it seemed to her—forever. She had been misled. Everything had contrived to mislead her. His smile, his words, gestures of politeness and lust, meaning nothing. Even her planet had deceived her. The way in which the sunlight fell on particular objects, the way music sounded. The leaves that towered in the hot-house had misled her with their scent. And she, she was guilty too. Hope is a punishable offense. The verdict is always death; one more death of the heart.

Medra wept.

Later she wandered her rooms. And she considered, with a practical regard, the means to her absolute death. There were medicines which would ensure a civilized exit. Or cruder implements. She could even die in agony, if she wished, as if to curse with her pain's savageness the one who had betrayed her.

But all violent measures require energy, and she felt herself drained. Her body, a bell, rang with misery. After a prolonged stasis of insomnia, there was no other refuge but sleep.

Medra slept.



She slept, and so . . . she *slept*. Down, down, deeper and deeper, further and further. The chains of her physical needs, her pulses, sighs, hormones, were left behind as the golden shards of the city had been left behind, and as she herself had been left, by one she had decided to love. Then her brain, fully cognizant, trained, motivated, keyed to vast concepts and extraordinary parallels, then her *brain* woke up.

Medra moved outwards now, like a sky-flying bird, her wings bearing her strongly. Into the vistas, into the sheens and shades, murmurs and orchestrations. She travelled through a multiplicity of geographies, over mountains, under oceans, galaxies—

Through the periphery of suns she passed, the cold reaches of space. She wove the tapestry and was the tapestry. The pictures filled her with happiness. The universe was her lover. Here, then, in the mystery, the weaver heard some far-off echo, diminishing. She thought, It must stay between the glass. She saw herself, part of a pattern, and elsewhere, random, her life. She said to it, kindly, You are my solace, but you are not enough. The stars flowed by her, and her brain fashioned their fires and was fashioned by them. She thought: But this—*this* is enough. ●

MARTIN GARDNER

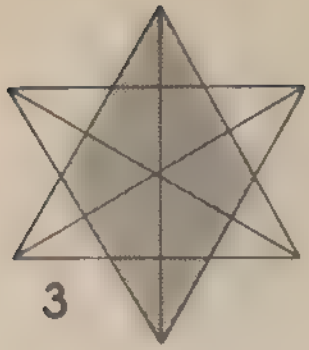
(from page 55)

## FINAL SOLUTION TO THE DYBBUK AND THE HEXAGRAM

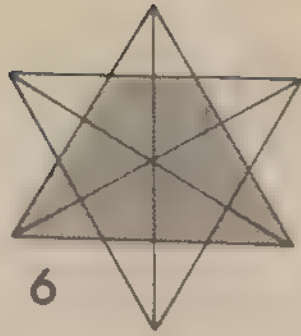
Last November I said I did not know how many different quadrilaterals could be traced in the hexagram pattern featured in the puzzle-tale. Brad Chase, of Raymond, NH, was the first to make a count that was later proved correct by Sander Eller and others. "If you want *real* frustration," Chase wrote, "try 5-sided figures." There are 156 quadrilaterals. Fifty-seven are convex, 36 are non-convex, and 63 are crossed polygons, like a 4-line drawing of a bow tie.

The illustration shows the number of times that each shaded quadrilateral appears in the hexagram.

## 57 Convex



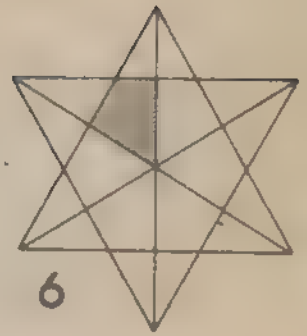
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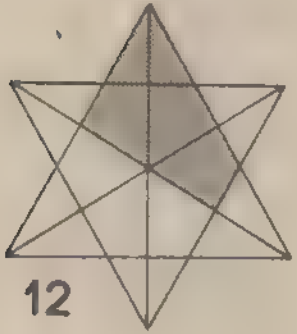
6



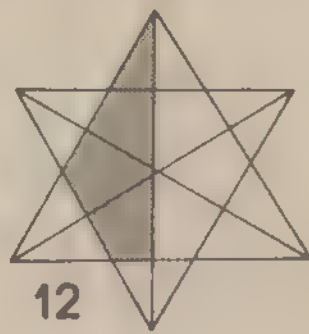
6



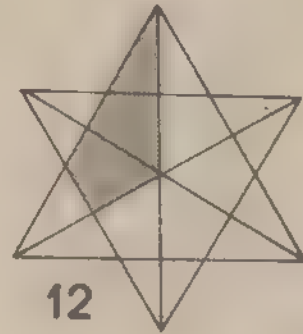
6



12



12

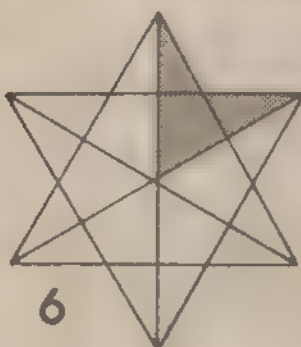


12

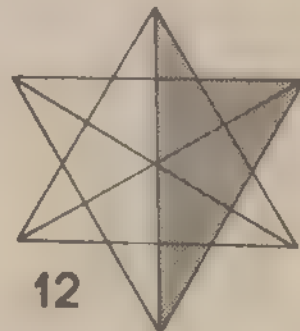
## 36 Nonconvex



6



6



12

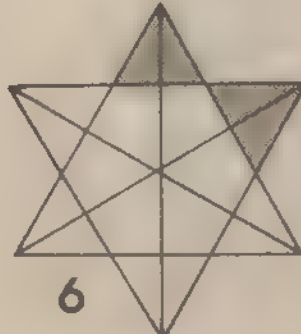


12

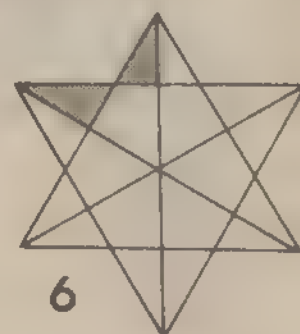
## 63 Crossed



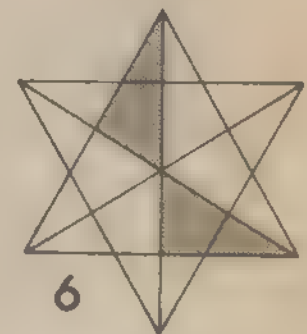
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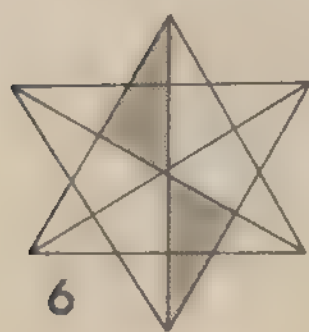
6



6



6



6



12



12



12

## The 156 Quadrilaterals





# SAINT THERESA OF THE ALIENS

by James Patrick Kelly

art: Hank Jankus

With a novel, *Planet of Whispers*, coming out from Bluejay Books and a number of story sales, the author says he feels as though his career as a writer, which had been rumbling down the runway for years, is finally taking off.

We hope to see a lot more from him.





So now they want to make her a saint. Her cult is spreading. Cures are claimed. The Purgers are taking over the Church; they want one of their own to be the first saint of the new century. The Congregation of Rites in Rome has named an advocate of the cause to prepare a brief for her sanctity. He has already asked me for an interview. I would rather talk to the promoter of the faith. The priest they call the devil's advocate.

Terry Burelli—Theresa to the mythmakers—did not have many friends while she was alive. I think it was because she was such a sad person. What I remember most about her is the sigh. She had no need of words to sum up her view of life. The sigh was enough. Even when she smiled it was as if she were expecting a disappointment. I never heard her laugh out loud; maybe she regarded humor as an occasion of sin. When she spoke in her soft, sighing voice people worried she was about to cry. Then she would shock them with her ferocious opinions.

My wife was her first cousin. When I met Nicole, she and Terry were roommates at St. Mary's College. I thought them an unlikely pair; at the time they seemed very different. Although both were attractive, Terry's beauty was cool and sterile; she was about as watchable as a plaster Virgin. Nicole and I would spend hours just looking at each other in wondrous silence. Both women were small-town Catholics, yet while Nicole was fascinated by the great world that the Church never mentioned, Terry was already building psychic walls to protect herself from it. Terry was a politician; she became chairperson of the local right-to-life chapter, forced the administration to blackout all X-rated movies ordered from telelink by the film club, and helped to set up a student-run soup kitchen in South Bend's slum. She dragged Nicole and me out of our apathy on occasion, although we much preferred being alone with each other to promoting her causes.

I wanted Nicole so much that I convinced myself that she was nothing like her dour cousin. We were in love; I thought that was enough to make a successful marriage. After school, we moved to Wynnewood, a suburb of Philadelphia, and each of us found interesting work. I became a staff writer and then an editor for InfoLine, one of the information utilities on telelink. Often as not I worked from my home terminal and had supper ready for Nicole when she came home from her job teaching history at Lower Marion High School. Our world was very small; it included just the two of us. We watched a lot of telelink and smoked hybrid pot that we grew ourselves and planted flower gardens and played pacball and drank daiquiris in video bars; all the soothing fri-

volities of life that people like Terry had no use for. It seemed to both of us that we were happy.

But Terry would not leave us alone. Our affluence offended her, although she was not at all shy about asking for money for her causes. Our indifference offended her more. She visited often and insisted on giving us her "reports from the real world," as she called them, tales of hunger and decadence and corruption. I can see her now, sitting on the modular couch in our living room, holding forth with quiet intensity about some misfit whose soul she coveted for the Lord.

"Thirteen years old." She would rub the crucifix hanging around her neck with thumb and forefinger. "She earns two hundred dollars a night and she needs every cent of it to pay for screamers. The only adults she knows are the johns; her only god comes out of a needle. And they call it a victimless crime. Your senator is cosponsoring the bill, Sam. You're in telelink; can't you do anything?"

Somehow, it was always my fault. By this time Nicole would have been spiritually battered into a corner of the couch. She would clutch knees to chest and nod, nod, nod, eyes blank. My best move would be to steer the conversation onto a more cheery topic. "What ever happened to so-and-so?" I would say, or "What should we watch tonight?" or "Where should we go for supper?" I did not mind sounding like a fool; I thought I was protecting Nicole.

Often as not Terry would ignore these gambits and continue on with her condemnations of the monsters who had inflicted modern civilization on the world. Once, though, she turned on me in a fury. "Sam, don't you realize that you could get in your fancy car right now, drive downtown and find people starving? What difference does it make to them if you can't order the Marx Brothers on the goddamned telelink?"

"People are born to die." I should have realized when she took the Lord's name in vain that she was out of control. I should have excused myself and spent a few minutes in the bathroom washing my hands. I did not. "God made them that way," I said.

She sighed. It was a sigh that acknowledged that I was the enemy but because God commanded it she would forgive me.

I did not much care to be condescended to in my own living room. "Everything is so simple, isn't it? If only the immoral louts like me would wake up and see the light. If only we would stop writing news, building cities, designing new computers. If only we would tear it all down and bring back the Middle Ages so that



everybody in the world was Catholic and wretched together. Solidarity of misery, that's the ticket! Then maybe we could all pray and God would take care of us like he takes care of the birds of the air or the lilies . . ."

"Shut up, Sam." Nicole sounded frightened. "You're drunk."

In fact, I had only had three glasses of wine but she was right. I was intoxicated with bitterness, high on blasphemy. Like many lapsed Catholics I had a kind of philosophical blood lust for the delusions of the faithful. Still, I had only been trying to protect Nicole and for my efforts had earned her rebuke. I was furious.

"Maybe you two would like to get down on your knees and pray for me? You'll excuse me if I don't stick around to watch. I'm afraid I might throw up." I thought I saw a smile tugging at Terry's perpetual frown; I was so mad I wanted to hit her. Instead I grabbed the half-empty bottle of Pocono riesling and retreated to the telelink room.

The Catholic Church has no answer to the problem of evil, therefore I cannot possibly . . . Oh, screw the problem of evil. Screw all the dusty ideas, the dry arguments for and against. There is no single moment when you lose your faith; it crumbles under a series of little shocks. An alcoholic priest preaches the "just war" doctrine from the Sunday pulpit. Your friend dies of leukemia and God pays no attention. A well-meaning nun tells you that thinking about sex is a sin. You realize the unspeakable cruelty of an eternal Hell. You read the Bible and then you look at the Church men have made from it. I lost my faith when I no longer needed ideas to comfort me. I had Nicole.

I remember that Nicole and I made love that night. Afterward, I tried to apologize for losing my temper. She hushed me. "It's all right, Sam," she said. "I understand. She scares me too."

That was just about the time that the aliens landed in Sverdlovsk.

It is hard now, after all that has happened, to remember how we all felt when we first heard the news. For years popular culture had prophesied the coming of aliens. Despite all the dark visions of monsters and cruel galactic empires, I think for the most part we longed to meet another intelligent species. We hoped they would answer all our questions, solve all our problems. As Nicole said, we were looking for a shortcut to paradise. We were the new Israelites, waiting for messiahs from space.

None of us expected that the messiahs would be communists. That was, I think, the hardest thing of all to accept. Not only had

the aliens chosen to land in the USSR, but they actually called themselves communists. It was, they said, the best translation of their own name for themselves. Of course, the name has never really caught on in this country; we are still calling them "the aliens." A barely civil name. A name that neatly summarizes our attitude toward them.

Despite what you hear, the aliens do not think much of Marx and Engels and they are only mildly sympathetic to Lenin. Yes, they hold all property in common, their economy is planned, they live in collectives. They do not expect their world state to wither away however, and they are by no means revolutionaries. You have only to look at their record since landing to see that they mean to change us by example, not by force. But still the preachers rail and the politicians lecture and the people do not understand.

It was six months after Sverdlovsk before they even bothered to visit the United States. I had the honor, if you can call it that, of representing InfoLine at the first English-language press conference ever given by an alien. Of course, no one has ever really seen an alien since they never come out of their bullet-shaped jump ships. The squat hairless monkeys that they call their "bodies" are in fact remotely-controlled mechanisms. The aliens fear the hostility of the Earth's environment and its inhabitants. I have seen and even talked to these "bodies"; like most people I accept the mechanism and rarely think about the mysterious and distant alien controlling it.

As an historic disaster, that press conference has been studied and restudied. Yet to this day I have difficulty remembering it, no doubt because it was so closely linked with a personal disaster. I could not sleep the night before; I was trying to find some middle ground between awe of the aliens and patriotic suspicion of their motives. Sometime after midnight I got out of bed. I must have woken Nicole as I prowled around the house; she came out into the kitchen to fix us both some hot cocoa. I was sorry to have disturbed her but glad for the company.

"Nervous?" she said.

I shrugged. If I admitted it to her I would have to admit it to myself.

She set a steaming cup in front of me. "I heard someone on the telelink saying today that it's going to take more than a press conference to make up for what they've done wrong already. He said that we shouldn't be listening to them, they should be listening to us."

"Morris. He's an asshole."



"Still, most people act as if they know everything just because they have starships. What if they don't? Maybe what you should do is get up and ask them who's buried in Grant's Tomb? They'd never figure it out." She chuckled. "You'd go down as the man who stumped the aliens."

"Go down, all right." Still, it was worth a smile at three o'clock in the morning. "Let's talk about something else."

She sipped her cocoa. "Terry called today. She's been asked to join the central council of the Brides of Christ. She doesn't know whether she wants to take the vows or not."

"That idiot. What she needs is a real man to sleep with, not a picture of the Sacred Heart of Jesus."

Nicole stiffened. "That's your prescription, Doctor? Get yourself some nice warm sex and call in the morning?"

All the warning signs were up but I refused to see them. "Never failed yet," I said with a leer. "Let's not talk about Terry. We always end up fighting."

"O.K. Let's talk about us." She considered. "I missed my period. I wasn't going to tell you until after the press conference but . . ."

"You're pregnant? But I've been taking my pills."

"I don't know yet. I have a doctor's appointment Wednesday."

"Nicole, those pills are ninety-nine and nine tenths."

"I know. Do you believe in miracles?"

I think I must have laughed at that. "Are you going to have it?"

"What do you mean, have it?" In that moment she was the only alien in the world. Her voice made me shiver.

"I mean that . . . I mean there's a choice."

"What would you do?"

"I'll do what you want," I said.

"You mean you'll go along with what I want. Even if you don't really want a baby?"

"I didn't say that."

"You don't have to. Your face says it for you."

It was one of the few times I wished that Nicole was the kind of woman you read about in books, the kind who run out of rooms crying. Nicole never turned away from trouble. "Look, honey, it's late and you've just sprung a hell of a surprise on me. I love you. I can't help it if my face looks like oatmeal. Let's go back to bed and give it a rest until morning. We'll both be thinking clearer then." I offered her my hand.

She did not take it. "All right, Sam. But there's no choice involved, do you understand? No choice at all."

The argument flared for a week and was never satisfactorily extinguished, only left alone by mutual consent to smoulder. I know she thought I did not want the child; maybe she was right. It was the first real fight we had ever had.

Needless to say, I was not at my best for the press conference. It was held in a bubble tent set up on a runway at Andrews Air Force Base. Nearby was the jump ship, which looked to me like a silo. A translucent dome atop a rotating red cylinder, perched on a fence of duraplas pickets. They say that the orbiting mother ship carries thirty in its hold; most of those had already landed in the USSR. Aliens can control their external bodies only at short distances, so most of our meetings have taken place on runways or other large open spaces.

The alien's name was Twisted Logic. Nicole believed that the aliens were twitting us in their use of the English language. That may well be, but the joke was the same in Russian, Spanish, and Chinese. Twisted Logic stood on a specially-built platform; he was less than a meter tall. The president sat beside the alien looking like a man who has just gotten a pink slip in his pay envelope. Twisted Logic was red and shiny like a new plastic firetruck. He was not wearing any clothes, but then he did not need any, not having any sex. He requested, however, that we not refer to him as an "it." His tail wagged when he talked. The tail was a wonderful touch; how can you distrust a creature with a wagging tail?

You can still view the tape of that first press conference on InfoLine. Most of the early questions had to do with why the aliens chose to land in Russia. Twisted Logic explained the similarities between alien political philosophy and communism. He cited the Leonov space station and the two Mars expeditions as evidence that the Soviet space program was far more advanced than ours. He said that the aliens were worried about security here. When he mentioned the bombing of the U.N. there was a low chorus of groans and even some hisses. Although he spoke in a high-pitched cartoon voice and giggled a lot and was as cute as a puppy, talking about the destruction of the U.N. was unforgivable. You could feel the press corps turning against him.

"Mr. Logic," said one conservative pundit with heavy sarcasm, "Mr. Logic, isn't your avowed bias toward the Soviet Union a tacit endorsement of the suppression of human rights there? What conclusions would you expect the American people to draw from the current situation, sir?"

Twisted Logic giggled. "The rights of the one versus the rights



of the many. We have resolved this conflict to our satisfaction. You have not. Infer only that we await your enlightenment and will instruct if asked."

"Why have you come to Earth?" called another.

He nodded. "Because you could not come to us."

"What's that supposed to mean?" someone shouted. The room filled with cries of derision.

"My response lacks content?" Twisted Logic looked for help to the president, who looked away. "Pardon. We bring ourselves to you because we are impatient for friends."

He might have made some friends had he continued in that vein. I tried to help him along. "Sir, we all recognize that your science is very advanced. Can we expect you to share your knowledge and technology with us? In particular, will you teach us to build star ships of our own?"

"Exactly." He pointed at me and nodded again. "Exactly. The universe is very large and we are very small. Intelligence must coalesce to grow."

"Coalesce?" whispered the woman sitting next to me. "Coalesce?"

"Sir!" Father Estragon from the *Logos* channel waved at the alien. He was Terry Burelli's favorite telelink commentator. "Sir, as you may know, many of our most difficult problems on this planet arise out of religious factionalism. Would you comment please on your own religious beliefs?"

"I hold no such beliefs."

Estragon turned as white as his Roman collar. "You don't believe in God?"

"When there is no evidence," said Twisted Logic, tail wagging, "the theory is discarded."

In a bar afterwards, Joe Perkins from the *Times* nicely summed up the play that the press conference was going to get. "Godless commies from outer space," he said.

There were no more press conferences. Access to Twisted Logic and the other aliens who eventually came to this country had to be approved by the State Department. Congress passed the Alien Secrets Act which allowed instant classification of any alien remark deemed "controversial." It proved unenforceable once Twisted Logic took his space silo on a so-called "Goodwill Tour" of the world, a tour which was haunted by demonstrations, riots, and misunderstanding.

All things considered, the reaction from the Vatican was circumspect. They insisted on the eternal truth of Divine Revelation

and announced that the Pope would begin saying a special Mass on the first Sunday of each month for the souls of the aliens. For the most part the East did not care. The Buddhists regarded the aliens as part of the general *anitya* of the universe; they too would pass and so no action was indicated. Most Hindus were willing to tolerate the alien heresy as long as it did not lead to social upheavals. The reaction from Islam was less tempered. There was talk of spiritual jihad, although how this might be accomplished was not immediately clear. The Shiite imams had a more concrete program: expel the aliens. The First National Baptists and the Moonies and the Brides of Christ agreed.

If the Brides of Christ ruled the world, there would be two classes of citizens: Roman Catholics and the damned. Their battle plan in the war for souls is an abrupt about-face and a forced march into the past. Do away with Vatican II, the Protestant Reconciliation, secularized clergy. It seems that they are everywhere these days, working even the smallest crowds in their severe black uniforms, an affectation of the habits formerly worn by nuns and priests. Yes, men join too, although the symbolism of a man marrying Christ is jarring. Fanatics do not worry about these things. The Pope does not yet recognize their activities but neither can he afford to interdict them. Millions have left the faith; groups like the Brides dominate the remainder of his dwindling flock. He is already a prisoner of their politics; soon they will be the Church. As Terry Burelli marched through their ranks they came to the center of the anti-alien coalition known as the Purgers.

Top management at InfoLine quickly discovered that the public's interest in the aliens was insatiable and so they spun off a special-interest channel, AlienLine. I was put in charge of the start-up. Although the assignment was a career coup, I could no longer work from my home terminal or even from InfoLine's headquarters in Philadelphia. I was often away from Nicole two or three nights a week. It was a difficult time for both of us because her pregnancy was not going well. For weeks it seemed as if all she could keep down were unsalted crackers and water. I tried as best I could to be the doting husband and proudly expectant father but there was the subscription rate for AlienLine to worry about and plane reservations to Washington and the problem of finding staff who could tell an adjective from an adverb. Sometimes I felt as if I had been split into two people, neither of whom liked the other very much.



Nicole and I had never really fought before she got pregnant; now we seemed to be making up for lost time. We argued about money, about politics, about the aliens, even about what to watch on telelink. We never shouted or slammed doors or cried; we just sniped at each other and then were horrified afterward.

"Wallace?" said Nicole. "Wallace?" She lay on the couch with her feet raised on a pile of pillows; she was having circulation problems. "Wallace is a fat man with suspenders smoking a cigar. Our son isn't going to wear suspenders, is he, Sam? And you're not fat."

"Walter?" I read from *Name Your Baby*. "Ward? Warren?"

"Wally." She chuckled. "What a lousy nickname." She shifted her weight restlessly; she could never seem to get comfortable. "I was thinking that Terry should be the godmother."

"What?" I closed the book.

"I know you don't like her that much, but . . ."

"Back up. Who said our kid was going to be baptised?"

She rolled over. "Sam, it couldn't hurt."

I tried to stay in control. "Damn it, Nicole, that's hypocrisy. I haven't been near a church for years and neither have you. We're not Catholics anymore—at least, *I'm* not. When the aliens say there is no God, I believe them. I don't understand you. Why are you so hot to jump back into a religion that most thinking people are scrambling to get out of?"

"Pregnancy does that to you. Makes you think about what makes a life. Makes you think about dying. Luckily you don't have to worry, Sam. The aliens have already done all your thinking for you." She sat up. "Name the kid after yourself for all I care. Except that she's going to be girl."

I sat beside her. "I'm sorry, Nicole." I kissed her. "I don't know what I can do, but I'm sorry."

Perhaps if the aliens *had* given us the cure for cancer or a wonder grain to end hunger or the secret of immortality, they might have won people like Nicole and Terry over. I think what we wanted most from them was freedom from all the biological traps the Earth had set for us. The aliens were not from Earth; they did not understand our biology nor were they particularly interested in it. A new physics was their principal gift, an arcane and rigorous discipline that ran counter to common intuition. Who cared that they had a detailed mathematical model for the first three minutes of the universe? Or that they had developed

from that a theory which linked weak and strong atomic forces, the electromagnetic spectrum, and gravitation?

Of course, there was interstellar flight. Everyone expected a joyride to the stars. But the aliens could not just toss us the keys to a starship and wave goodbye. First we had to learn to control gravitrons and squeeze through the interstices in space-time. Then there was the difficult problem of life-support. It soon became clear that it would be years, perhaps decades, before the first ships would be ready. By the anniversary of the Sverdlovsk landing many Americans were disillusioned and bitter. Which was exactly what the rapidly-growing Purge movement wanted.

Purge. Sometimes a word will distort under close scrutiny, and its various meanings will twist back upon themselves. There are spiritual purges, purifications of the soul. Dangerously high pressures can be relieved by purging. Certainly there were some in the Purge movement whose goals were positive. Yet the word also has a bloody legacy of intellectual and religious intolerance. Purge trials. Popes urging crusades to purge the Holy Lands. Hitler's unspeakable purge. I think these dark connotations come closer to the essence of the Purge movement. And it was as a Purger that Terry Burelli came to the attention of the world.

Assassins stalked the aliens. Someone threw a bomb into the presidential reviewing stand during a parade in Buenos Aires. Twisted Logic got a new body and Argentina got a new dictator. A splinter group from the Purge Movement took credit.

Terry had the bad judgment to make one of her weekly telelink calls just after the news broke.

"Nicole's taking a nap," I said. "She's having a bad day and I don't want to wake her up."

"Is she all right?" The old black-and-white camera at her terminal made Terry look as if she had not slept in days. "What does the doctor say?"

"She's pregnant, Terry. It's hard work. Call back later."

"What's the matter, Sam?" She did her imitation of a smile. "Are you angry at me again?"

"At you and at all the other goddamned Purgers. Where, in the Bible does Christ say you can go around blowing up your enemies?"

"We have nothing to do with those people, Sam. Sister Laura denounced them; I wrote the press release myself."

"Yeah, sure. And how much will the Brides be giving to their legal defense?"

"We deplore their tactics, not their cause. Certainly they made



a mistake. We don't believe in violence, Sam. There has to be a better way to purge the world of . . ."

"Goodbye, Terry." I was too disgusted to bother with the niceties; I had to cut her off.

Whatever the tactical disagreements within the Purge movement, all could agree that getting at the aliens to expel them was the major problem. They could intimidate the aliens' human collaborators. But the true enemies of the faith were safe within their well-guarded silos. How could they achieve their goal of purging the world of aliens? Terrorism and prayer proved equally unsatisfactory. Politics remained.

Pride was the key to their plan. Throughout the twentieth century Americans had believed themselves to be the most advanced people in the universe. Suddenly we were no longer first; that place was reserved for the aliens. Worse, we were not even second; with the aliens' help the Soviets had surpassed us. Wounded pride is intangible; you cannot build guns out of it. But with the proper manipulation of the facts, you can turn wounded pride into votes. The strategy was to purge the United States, then the other industrial states, the Third World, and then . . . Then a Purger will smile with the confidence of one who is fighting the Lord's fight. It is not hard to see behind that smile to the inevitability of a Third World War with the Soviets.

AlienLine had to cover the Purge Movement. I wanted to expose them for what they were, but I was overruled. The Demographics Department was able to demonstrate that forty percent of our subscribers were either Purgers or sympathizers. Know thy enemy and all that. Since I was unable to match their propaganda with some of my own, I decided to let them indict themselves with their own words. God help me.

My idea was to stage a debate between an alien and a leader of the Purge movement. I fought for weeks to sell it to my own people at AlienLine, and then to top management at InfoLine. Finally I won permission to approach the State Department with the plan. I thought it might take several months to work out an agreement but State acted as if we were negotiating a nuclear disarmament treaty. I found out later that the Purgers in government were holding the project up for their own purposes.

Nicole had a disastrous miscarriage her second trimester while I was covering the aliens' first visit to South Africa. I did not know until I found Terry waiting for me when I got home instead of Nicole.

"I want to see her."

"She's asleep. Let her rest."

I poured three fingers of Scotch and drank it neat. Terry watched me, her eyes alight with disapproval. I did not want to see her; I wanted to be with Nicole, to hold her and tell her how sorry I was. If Terry had had one milligram of the compassion that saints are reputed to have, she would have gone away to leave me alone with my guilt and sorrow.

"It doesn't matter that you don't like me, Sam." She worried the rosary beads that hung from the belt of her black habit. "I had to come; she had no one else."

I said nothing.

"She told me everything, you know."

I poured myself another drink.

"I hope you're satisfied." I would have expected a malicious grin. Instead there were tears.

"What do you want from me?" I cried, resisting the impulse to throw my drink in her face. "You want me to slit my wrists?"

"That's the kind of penance a godless man does, Sam. I want you to make your peace with Jesus, not with me. Stop leading my best friend into sin."

I set my glass on the wet bar very carefully, as if it might explode if I jostled it. "I'm home now," I said. "Nicole won't be needing you anymore." I left her and went upstairs. I opened the door the bedroom and slipped onto the chair by the bed. Nicole did not wake up. I spent the night staring at her through the darkness. Terry was gone when we came down together the next morning.

It would have been better for both of us, I think, had Nicole been angry. If she had asked me to quit AlienLine, I would have. I owed her. Instead she bore her misfortune with the quiet grace of a saint. She had lost not only the baby but one of her Fallopian tubes and part of her uterus; her gynecologist warned that another pregnancy might kill her. Yet she never complained. She returned to her job. I tried to get home more often. Our lives settled back into the comforting rhythm of work and play. With one exception. Nicole started to go to church.

Not only Sunday Mass but every morning. St. Mark's was on her way to school, she said, it was no problem. Yet for me it was a terrible problem. In my guilt I thought at first that this was the punishment she had chosen for me; I had no choice but to accept it. In time I came to realize that her churchgoing had nothing to do with me and this was even harder to accept. She



was building a wall in our marriage, staking out private territory where I could not go. She knew I would never be reconciled with the Church, especially a Church run by Purgers. And yet *she* was no alien-hating fanatic; except for the fact that she disappeared from my world for a few hours every week she was still my love, my Nicole. We reached an uneasy compromise about religion.

"I don't want to argue, Sam." I could hear a hint of Terry Burelli's sadness in her voice.

"I don't either, I want to understand."

"I believe in God. You don't. I'm not going to convert you so please don't try to convert me." She would smile and touch my hand and I would shut up. Most of the time. But because I worked so closely with the aliens I had to ask her.

"What does it matter if we gain the stars, but lose our immortal souls?" she said. "Do we have to accept everything the aliens tell us, do everything their way, and forget about all the things that make us human? Have you ever asked yourself what they are really offering? They want to make us over in their image. We'll be reasonable, regulated, technologically advanced—and aliens on our own world. And even if we get to the stars we'll be second-class citizens, the ones that had to be helped. I don't need any of it, Sam. All I need is what God offers."

It was summer before State finally let me approach the aliens with the idea of the debate. Maybe all the fourth of July demonstrations organized by the Purgers had convinced them that something needed to be done. Twisted Logic referred me to his superiors in Sverdlovsk; it took me several tries before I could convince an unenthusiastic alien named Final Authority. I had the impression that he did not much care about American public opinion. "If your people truly want it, we will leave your country. We do not need to be understood; it is you who need to understand."

According to my agreement with State, the debate was to be taped and the tapes submitted for editing by government censors. I soothed my conscience by vowing that if they butchered the debate AlienLine would not run it. To ensure security, all human participants were to board a transport at Andrews Air Force Base and fly to a secret rendezvous with the aliens. There would be a live audience of fifteen, five guests of AlienLine, five Purgers and five alien sympathizers—scientists all, as it turned out. They would be subjected to personal searches and liable to fine and

imprisonment for disorderly conduct. It was not perfect but it was the best I could do.

I had not seen Terry since the miscarriage and had managed to avoid most of her telelink calls to Nicole. Nevertheless I had followed her career as Sister Theresa, a superior of the Brides of Christ and one of the more rational advocates of the Purge. She had introduced the idea of non-violent prayer marches to disrupt public appearances by the aliens. It seemed that every other week AlienLine was forced to run footage of some sweet little grandmother saying Hail Marys while being dragged away by stony-faced policemen. Terry had all the qualities that telelink loves in its newsmakers. She was attractive, she sounded sincere, and she spoke in a kind of sloganese that was easy to understand. She was a master of the fifteen-second quote yet I was sure that if forced to speak at length she would stumble. For that—and other reasons—I wanted her to take the Purge side in my debate. Terry did not seem surprised when I asked her but then I supposed that State had leaked the idea.

"What format?" She was taking notes.

"Opening statement, five minutes. Twenty minutes of question, response, rebuttal, each side alternating. A three-minute closing."

She sighed. "Not much time."

"If the ratings are good enough you can go at it again."

"You're a cynical man, Sam Crimmins. I pray for you sometimes."

Once such an admission would have thrown me into a rage. Now I found the futility of her prayers for my soul touching. It struck me at that moment that many of her prayers probably went unanswered. It was an austere life that she had made for herself; I wondered if she were disappointed with it. She looked weary. I could see that her telelink image was largely a product of makeup and acting.

"Moderator?" she said.

"Me."

She shook her head.

"All I do is keep the time," I said. "It's your show."

"I have to talk it over with the Council. They'll say yes." She pushed the notes to one side. "Why are you doing this, Sam?"

"Have you ever met an alien?"

She frowned. "No."

"I just thought that you should."

I was surprised when Nicole asked to go. My first inclination was to say no; after all, her sympathies were clear. I said yes



because I still believed her to be a reasonable person who would be intellectually honest enough to give both sides a fair hearing. I realize now something that I only half understood then. I did not stage the debate for the world; I staged it for my wife. I wanted her to see that her newly reaffirmed faith was a mistake. I wanted her to doubt because I could never believe. Although on the surface our marriage continued as before, there was an underlying friction that was slowly abrading the base of love and trust between us.

In addition to Nicole, the guests from AlienLine included Janet Trumbell, the President of InfoLine, her husband Geoff, and two of InfoLine's corporate lawyers. The rest of the party that boarded the plane at Andrews included three edgy bureaucrats from State, our camera crew and the pro and anti factions. The group had been kept to a minimum in the hope that if the debate proved too controversial it would be that much easier to suppress. Once in the air we were told that we were heading north to Hanscom Defense Force Base, west of Boston.

Had I known the location ahead of time, I might have suspected a trap. There are both civilian and Defense Force runways at Hanscom. The guests remained on the plane while a squad of soldiers escorted the camera crew and me to the bubble tent on the runway where the debate was to be staged. I did not realize at the time that these soldiers were not the troops of the United States Defense Force I had expected; they were members of the Massachusetts Guard. We had landed at the civilian airport, not the military base. I had a telelink show to produce; all I noticed were the guns and riot helmets and the green uniforms. Two of the scientists have claimed that the soldiers who escorted them wore Defense Force uniforms. It is a clear violation of law for state militiamen to pose as federal troops. The governor of Massachusetts denied that his men switched uniforms. The governor claimed that they never identified themselves to us at all and therefore broke no laws. The governor, who took personal charge of the Massachusetts Guard that day, was a Purger.

All we had asked for was one alien. But when the airlock of the red alien silo opened two bodies came out. One identified himself as Twisted Logic. He introduced a banana-yellow alien called Awful Truth who was to argue the alien side. All the Purgers except Terry were apoplectic. "How can she debate someone named Truth?" one cried. "It's not that thing's real name, I tell

you!" another thundered. "They make their names up to suit the occasion."

Terry just sighed her all-purpose sigh. "The Lord will speak today, not me," she said, and managed to make that outrageous statement sound humble. "He knows all the tricks of the devil." That shut them up.

It was about four in the afternoon when the tape started to roll. I introduced them as Sister Theresa of the Brides of Christ and Awful Truth the communist. The opening statements were predictable. Awful Truth gave the digest version of the big bang, planetary formation, organic soup, life, evolution, intelligence. He was more impressive than Twisted Logic, perhaps because he did not giggle so much. I got the impression that he was the alien version of a humorless fanatic, in which case he was well-matched with Terry. She spoke first of Jesus, then of the Judeo-Christian tradition, and then as a seeming afterthought, the other religions of the world. You could tell that Islam was not her favorite word and she did not even distinguish between Hinduism and Buddhism, lumping them together as the "faiths of the East." It sounded as if she were improvising. Round One to the alien.

Terry asked the first question. "Who caused the Big Bang?"

"By cause you mean a sequence of events in time. Time does not exist prior to the Big Bang, therefore no causation is possible."

"Time did not exist!" Terry gave the camera a sly, play-act grin and nodded to the millions of scientific illiterates who might one day be watching. "What may I ask did exist?"

I was not going to allow her to violate the ground rules on the first question, but Awful Truth replied anyway. "As creatures of time, we can never know."

"Then even in your science there are some things you must take on faith?" she said.

"Excuse me," I said firmly, "but you have spoken out of turn, Sister Teresa. Awful Truth, you may now ask a question."

"Her beliefs are invalid. Asking questions in this context equates her unsupportable opinions with theories which can be verified empirically. Therefore there are no questions. I am content to respond."

I was as dumbfounded as the audience. I wondered if I should stop the cameras and explain the debate to the alien again. I wondered if I should just stop the camera, period. While I wondered, Terry spoke up.

"Thank you, Mr. Truth. Many of those who believe in God



wonder how you aliens are able to tell the difference between good and evil. Some, in fact, claim that you do not care. Do you?"

"We do not recognize such absolutes in the universe. Good and evil are emotional attitudes; they have no truth value."

"Is that why you were attracted to Russia? Without God, there is no reason to be concerned with human rights. You don't have to *recognize* such minor problems as repression, torture, political murder . . ."

"Sister!" I had to interrupt. "Is this a speech or a question?"

She sighed. "A question, Mr. Crimmins."

"Our anthropologists," said Awful Truth, "are most interested in this aspect of religion. Some believe that you have invented your gods to generate an ethics. We do not understand why you should need such an elaborate machinery. We recognize ethical concerns but we do not deceive ourselves into believing that they are woven into the fabric of space-time. Ethics cannot pre-exist intelligence. They must be created by each thinking species using the tools of logic. To pretend otherwise is to license such acts of intolerance as you have mentioned."

Most of this last speech I have reproduced from tape. Just as Awful Truth started to speak, Laszlo, down in our telelink truck, whispered through my earphone. "Sam, I've got a general on the satellite line. Claims he's Defense Force. Wants to know what the hell we're doing. Something stinks about this setup; you smell it up there?"

I held up my hands to both debaters. "Excuse me. I'm sorry but I've just heard from my production crew. Tape problems. If you'll just be patient for a moment I'm sure it won't take long to fix. Thank you."

Actually the tape was still rolling. On it you can see Terry glare at her side of the audience and shake her head. I had to step away to get any privacy. "Okay, Laszlo, what is it?"

"You tell me. Guy claims he's in charge of alien security. Says he's been getting bad information from State and he's got three of his own staff kneeling in his office saying Our Fathers. He thinks we must be on the civilian side of Hanscom; doesn't know who our soldiers are but they're not taking orders from him. He's talking major-league conspiracy, Sam; he says to get the aliens the hell out. This is Purge country."

Twisted Logic waddled to my side almost before I could wave him over. He had plenty of experience with terrorism. "Something is wrong?" He was not giggling.

"The debate's over. Get back to your ship; there may be danger."

As the two aliens conferred the audience stirred uneasily. When Awful Truth climbed down from his high chair, someone cried, "Take them!" The Purgers surrounded the aliens and began to pray. Guardsmen appeared at the exits. "Stop this, stop!" I shouted at Terry. Their escape seemingly cut off, the aliens tucked their heads close to their squat bodies and sliced through the crowd with a nightmarish agility. The soldiers raised their guns and sighted but did not fire. With a whoosh the aliens punched through the walls. There was an eerie second of silence as we all rushed to the plastic windows of the sagging bubbletent to see what had happened. The aliens had bounced, once, twice and come up bounding like frightened kangaroos. Awful Truth jumped clear over the telelink truck on his way to the red silo down the runway.

"To the ship," called a Purger.

"Go, go!"

The tent emptied. As Terry brushed past me I grabbed her and spun her around. "What are you doing?"

"I'm going to unmask the devil."

"What?"

"We're boarding the ship."

I shook her, probably too hard. "Stop them, do you hear me? For God's sake, stop them now!"

She turned her sad face up toward mine and sighed as if this were all my fault. "For God's sake," she said, "I can't."

I could have hit her then. Her treachery had stripped away the veneer of fair-minded reason; I was a raging fanatic. We were two of a kind, I saw at last, and neither of us were saints.

"Let her go, Sam."

I turned to Nicole and saw something in her then that I had tried for months not to see. She was, like Terry and I, a zealot. But while the fire that burned in Terry's soul made her sad, while mine made me angry, Nicole's burned with joy. Perhaps that was why I had missed it. I realized that I had lost her.

Shaken, I let Terry go. For a moment we three stood looking at each other in the now-empty room. We had known each other for fifteen years and we were strangers.

"Let's go, Nicole," Terry said.

"Don't," said I, knowing better.

"Come," Nicole said to me as Terry steered her toward the door. I sagged into a folding chair.

"Wake up, Crimmins, goddamn it! Sam!" Laszlo's voice had been buzzing in my ear for some time.

"Yeah?"



"What the hell is going on?"

Instincts took over. "The aliens have bolted for the ship. Get a camera on it. I'm on my way."

I ran out of the building but did not stop at the truck. I could see two knots of people near the aliens' ship. The larger stood off about fifty yards, the smaller directly underneath the ship's exhaust port. They gathered around a fire truck with a raised hydraulic ladder. In the bucket a soldier with a laser torch was attacking the jump ship's hatch. As I approached, Twisted Logic's amplified voice boomed across the field.

"WE REGRET YOUR PROBLEMS. NOW WE ASK THAT YOU CLEAR THE AREA SO THAT WE MAY REMOVE OURSELVES. PLEASE CLEAR THE AREA."

Those beneath the jump ship took the announcement as a cue to sit down. I was stunned to see that their number included not only Terry and the Purgers but also the three liaison men from State, both of InfoLine's lawyers and even one of the scientists.

And Nicole.

I went first to the soldiers standing off to one side who were guarding the rest of my audience. "Listen," I said to a bemused captain, "you've got to move those people out of there. If that ship lifts off, they'll be incinerated."

His eyes glittered in the shadow of his helmet. "Orders are to leave 'em alone."

"That's my wife under there! Whose orders?"

"Orders."

"SCANNING SHOWS SIXTEEN HUMANS BENEATH THIS SHIP. WE WARN YOU TO MOVE IMMEDIATELY. CLEAR THE AREA TO A DISTANCE OF THIRTY METERS. MOVE IMMEDIATELY."

I broke away from the Guardsmen and sprinted to the ship. Two soldiers pursued me at a dogtrot. "Following you with the zoom, Sam," said Laszlo. "Is that what you want? General says his Defense Force boys are on the way. Should be great footage."

The Purgers seemed as calm as if they were on picnic. Maybe they thought the aliens were bluffing but I know at least one was perfectly prepared for martyrdom. "Get out." I could hardly breathe. "You think they'll just sit here while you cut your way in? Get out of here! Nicole!"

The soldiers grabbed me. "Let go, God damn it. She's my wife. Nicole!"

"Wait," she said and the soldiers obeyed. "Do you believe, Sam? If you believe you can stay." Terry glared at her.

"I believe in you. But you can't stay here, Nicole."

"It's not enough." She smiled but shook her head. "I love you."

"Sam," said Laszlo as the soldiers dragged me away, "get your ass out of there. The general has given the aliens permission to lift . . ."

The two soldiers and I were flattened by the ignition of the jump ship's drive.

In the aliens' lightweight jump ships, lasers heat liquid hydrogen. As the vaporized fuel is exhausted in one direction, the ship moves in the other. Supposed to be very efficient. The takeoffs are not so spectacular as those of our clumsy old chemical propellant rockets. Which is why I am alive today.

As it was I suffered second- and some third-degree burns from the blast. I was bloodied by flying grit. I was deafened and I was very nearly suffocated. Still I was not so stunned that I did not struggle up as soon as the ship's roar faded to see what had happened to Nicole. Although I knew nothing could have survived the direct force of the blast. Although I knew . . .

I was wrong. Something stirred amidst the broken chunks of glazed concrete. A pale something shook itself in that charred black circle. It stood and staggered in my direction.

For a moment I thought it was Nicole.

Terry was naked. Every hair on her body had been scorched down to the follicle. Her skin was so white that it seemed to glow. Yes, even on the telelink tapes—you can see it for yourself. I doubt she could see me. Her eyes were covered with a milky film. I do not know how she could walk. As she came closer I tried to stand but could not. So I dragged myself. Away from her, do you understand? The fire truck had been reduced to slag. She should have been dead.

She was less than ten yards away when she stumbled and dropped to her knees. She raised her ruined eyes to heaven and cried out. I was there. I heard her—just barely. I saw her face. It was not a cry of triumph, as most will tell you. It was a cry of horror. "I have seen the face of God," she said. "The terrible face of the Lord."

She collapsed onto the runway. By the time the soldiers got to her, she was dead. I believe she died knowing that she was damned for the sin of pride. If there is a God, *He* chooses His martyrs; they may not choose themselves.

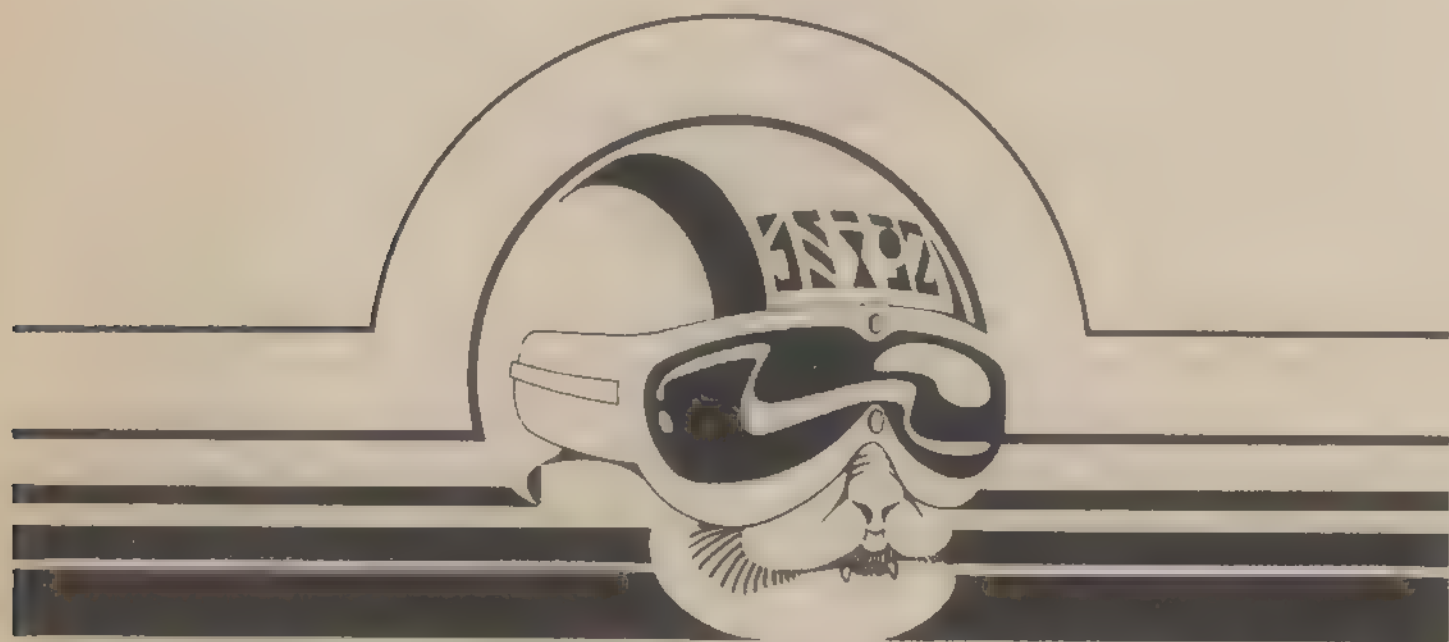
Dead. If this were just a memoir, I would end it here. But the story must go on even though the main characters are dead. Even though those that are left do not much care to continue. Although



the Purgers intended to win the debate and use it as propaganda, it was primarily a way for them to capture a jump ship. Once their ruse was discovered, they were prepared to act instantly. They now claim that the break-in was intended to be non-violent, although I do not know how they could have entered the aliens' environment without doing some harm to someone. They wanted to unmask the aliens' true form in the hope that it would prove to be monstrously grotesque, and that world opinion would then rally in horror to the Purge. They also wanted to capture and dismantle one of the aliens' artificial bodies. It is less clear whether they planned their martyrdom. Obviously they were prepared for it; I think that Terry wanted it.

When the tape of that afternoon was released, as it had to be, Terry had her victory. It is a moot point now, but even if we could convince the aliens to trust us again, the Purgers probably have the votes to expel them. America has got religion again. Anyone with any brains has already started to learn Russian. Is that bad? The aliens say there are no such things as good and bad. The goddamned aliens who incinerated Nicole and my life.

I know I must tell all this to the priests from Rome. I know it will probably make no difference. Dear God, hear my prayer! Do we really deserve Blessed Theresa of the Aliens? ●



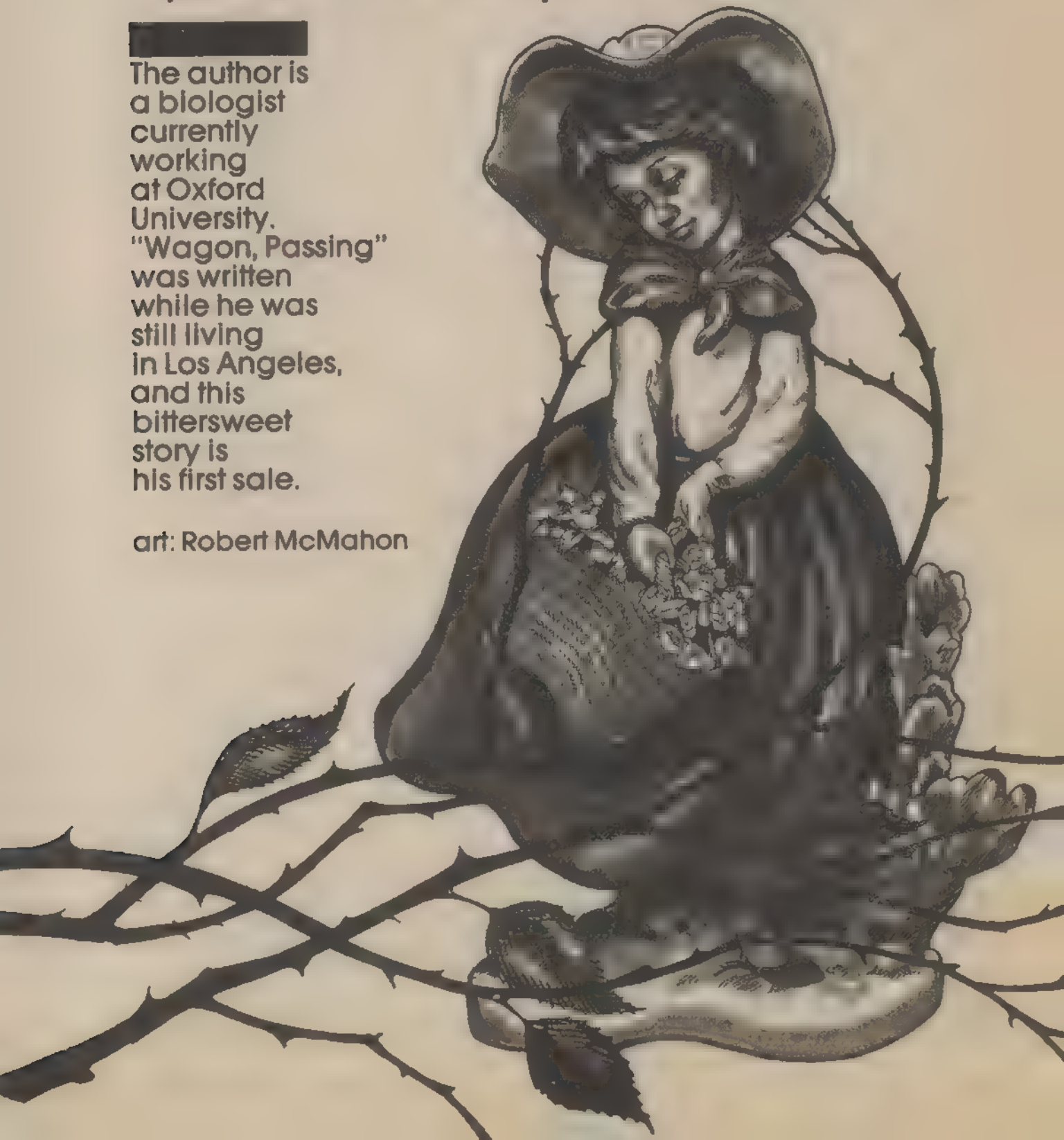
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# WAGON, PASSING

by Paul J. McAuley

**THE**  
The author is  
a biologist  
currently  
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"Wagon, Passing"  
was written  
while he was  
still living  
in Los Angeles,  
and this  
bittersweet  
story is  
his first sale.

art: Robert McMahon





The Monroe house stood atop a small knoll near the rim of the long valley. Behind it, on low hills shaped as if idly gouged by some huge child, pylons raised empty, impotent arms to the imperial blue Californian sky; in front the land swooped down, golden-brown with dry grass, to the green meadows which lay either side of the ruled double line of the old Interstate and the slow, green river where the Los Angeles Aqueduct had been. Beyond, the flat floor of the valley stretched east and south to a hazy horizon bisected by a single plume of smoke, a smudge on the canvas of a careless artist. To the north the Tulare Sea shimmered like a mirage.

Jessie Monroe was working in the vegetable patch in front, tending her rose bushes, when her husband, leading his swayback mare, came up to the house. A honey-colored Alsatian loped at his heels. As he entered the speckled shade of the row of eucalyptus trees, Jessie went over to the fence to meet him. She was a tall woman in a faded print dress, her figure blurred by middle-age. Her long, callused feet were bare, so that she stepped carefully, wary of thorns that had dropped to the cracked ground. Above, dry leaves rattled in the hot, constant wind; crickets sang in crackling weeds.

"Going down to town now," he told her.

"Well, you don't need my approval, R.J.." Her husband had been named Roosevelt James, but his father had also been called Roosevelt and there had already been too many Jimmies in his family, so from childhood he had been known as R.J., even now, when probably all of his family were as dead as his parents, who had owned the land here before the war, who had been murdered before Jessie and R.J. could reach them.

With the hand not holding his mare's reins, R.J. lifted off his wide-brimmed straw hat and slowly fanned his sweating, pinched face. His brown hair, slicked back, was dented where the hat had rested. He allowed, "Thought you might be needing something."

"Whatever could they have down there that I'd want!" Jessie was given to exclamations and gestures larger than needed, a residue of her theatrical training.

Her husband shrugged.

Jessie considered. In the pause, the Alsatian wriggled under the fence rail and trotted over to the porch where its brother and sister rested in the shade.

"If they have any cotton," Jessie said, "you could maybe buy a few yards. All my dresses are worn through, and you can hardly

wear wool in this heat. Get something plain and I'll run you up a shirt too."

"It'll be expensive," R.J. said judiciously.

"Well, when is someone going to start weaving again? They used to grow cotton all around here; they should start again. We don't need all the land for food now."

"You could raise the matter in town meeting, instead of bothering me."

"You know they don't listen to women, R.J." The truth was, Jessie didn't feel comfortable among the others of the little community. They were a dour, moral, hardworking people, as enduring as the boulders which studded the parched hills; returned to the landscapes of his childhood, R.J. had reverted to type, shedding the skin of culture he had acquired in L.A. as easily as a snake sloughs the film of scales it has outgrown—no longer did he and Jessie discuss art, movies, books, plays. All gone anyway, burnt up and blown away.

R.J. told her, "It's up to you, I guess. I'll see what I can do, but don't count on it." He set his hat back on his head and added, "Vegetables need work more than flowers."

"I won't forget," Jessie said shortly. The roses had been a bone of contention between them right from the beginning; she had kept them going all through the first years, when bands of refugees had decimated the crops and there never seemed enough anyway, when she should have been working on essentials. They were the only rose bushes for miles around, each standing in a neat circle of carefully mulched earth, red, gold, and ivory blossoms perfuming the hot air.

Her husband shrugged and added, as he always did when he left her alone in the day, "Any trouble, you fire off that pistol and Sam'll come right up." Sam was the old man, a refugee, his face disfigured by cruel burn-scars, who was their shepherd.

"Get on with you," Jessie said. "You be careful yourself, what with the war out there."

R.J. looked at the smoke smudge, looked back. "Just a skirmish over pasture, a long way off and we're keeping out of it. Town council is all agreed on that, don't you worry." He pulled his mare's head away from the grass she'd been nibbling all the while and hopped up into the saddle, flicking the reins lightly to start her into her slow trot.

Jessie watched him past the line of eucalyptus, then went back to plucking Japanese beetles from the newly opening buds. It was a day like any other, immense, quiet. Every now and then the



wind shifted so that she could hear the bleating of sheep miles away down by the river. She worked at a steady pace, her mind so absorbed in the simple task that, had she been asked, she would have been hard pressed to say what she had been thinking about. Skippingly, about how little she and R.J. talked these days, about the graves in back which she should clear again (it had probably been scavengers, because all the canned food and most of the tools had been taken; she had helped R.J. dig the shallow graves and lay his parents in them). About what she would cook for supper, the menthol of the eucalyptus trees on the wind, the way the heat dried the petals of the roses even before they dropped from each fat, central hip.

She did not look at the land around her—it was too familiar to bear looking at—so the first thing she knew of the visitor was when the dogs began to bark, leaving the shade of the porch and running down the track. Jessie looked up and saw a plume of dust a mile away, too large to be her husband returning.

It was probably only one of the neighbors, but to be sure she went inside for the old revolver. When she came out again she could see that a wagon was approaching, a stranger's wagon: what looked like a flatbed trailer with wide rubber wheels and a cover hooked over a contrivance of stakes, drawn by a single mule. It came steadily up the track, brushing between dried weeds, escorted by the three panting Alsatians. Something gripped inside Jessie's chest, a heady bubbling mixture of excitement and apprehension.

The man who drove the queer rig sat on a lashed-up bench: a bare-chested skinny man wearing new-looking jeans. He pulled at the reins and the mule slowed to a trot, stopped. The dogs circled, exchanging dubious growls.

Excitement and apprehension erased, blank with anticipation, Jessie stepped up to the fence, aware of the heavy weight of the gun tugging its belt at her right hip. People didn't travel much, what with the roads worsening each winter, animals getting bolder, bands of robbers roving unchecked beyond the limits of each community's patrols. She had gotten used to the same faces in church, piously giving thanks for having been saved, the visits of her monosyllabic neighbors, who might manage ten whole sentences in the hour it took them to drink their cider before leaving. Here was something new, and she wasn't sure what to make of it.

"Afternoon," the man said, leaning forward. The reins dropped

from one fist. "Does this track meet with the north road over the hills?"

"... Yes."

"I hoped so." His smile revealed large yellow teeth. He was perhaps thirty, his face darkly tanned and glistening with sweat, undershot by a short, spade-shaped beard. "You get so you no longer trust maps, even though the land hasn't much changed. I usually go by Visalia, but with the trouble they're having right now, I gave it a miss this year."

"If you're going north, surely the interstate would be better, and cooler too, down by the river."

"Someone in town told me it was flooded further up. From the way it rained this spring I can believe it."

Some tension Jessie hadn't been aware of before relaxed. If the man had been through town he was vetted, safe.

"I'm forgetting my manners," he added. "It's being out in the wild so much, I guess. I'm John Varney, traveler."

"Jessie Monroe."

"I haven't seen flowers like this in years. My mother had one or two bushes, out in the desert, but not like this. That yellow one, the big one there, what is it?"

"'Peace,'" Jessie said, with embarrassed gratification.

"After smelling mule out on the road all morning, it's a welcome scent. Tell me, could you do me a favor and call off your dogs? I have a cat, and he won't be happy until there's something between him and those three."

"Of course," Jessie said, and called in the Alsatians, shutting the gate behind them.

"Thank you," the man said, politely enough, and lifted a large calico cat, with the big head and ragged ears of a tom, onto the bench beside him. There seemed to be something wrong with its belly; loose folds of fur there suggested a wound.

"It's not too much to ask, I hope, if you could give me a drink of water? I must have half the county on my tongue."

"The well's in back."

They walked around the side of the house in silence. Something inside Jessie was bubbling, singing, pure excitement, but she stood quietly as the man filled the tin mug that hung from the standpipe and drank greedily, his Adam's apple bobbing. He stuck his head under the spout and splashed his black hair, scrubbed at the roots of his beard, then stood, blinking water from his eyes. Droplets glittered in his beard and the hair on his chest. "Thank you," he said simply.



"We have plenty, and it's clean."

"Fossil water, not groundwater? That's good."

"It's why everyone around here keeps healthy," Jessie said, and felt that she had said the wrong thing. Above their heads, the fantail of the windpump revolved lazily, squeaking.

But the man merely shrugged. "It's good country." He was gazing at her frankly, and Jessie was uncomfortably aware of the blue veins that crawled over the tops of her bare feet, of her blonde hair coarsened by gray and pulled back in an unflattering bun, of the red skin of her cheeks.

She ventured, "What do you travel in?"

"If your knives need sharpening, I'll do it, or put an edge on any tool that needs it. I can fix most machinery, and I'll repack the bearings of your pump if it leaks. In short I'm an all-round handyman."

"We do all our own fixing. I'm sorry."

"That's the way it mostly is, these days." He didn't seem to be very disappointed.

"Surely, you'd do better staying in one place than traveling around. It must be dangerous."

"Oh, it's not so bad. Animals still fear us enough to keep away; after all, we're pretty big animals ourselves. And something like a bear is only after your food anyway, so you tie it up in a tree where it can't get it.

"What's it like out there . . . now?" She wanted suddenly to ask so much more, to find out what was beyond the familiar horizons. She remembered how it had been when there had been cars: get in one and in a few hours you could be in another city. She and R.J. had driven from Los Angeles to San Francisco one night on impulse. The same car rusted on its wheelrims behind the windpump, weeds pushed up through its engine compartment.

The man wrinkled his face. "What's it like? Why, if you remember how it was, there's still a lot intact, away from the craters. There's a place I go to in Los Angeles, used to be a museum I guess, in a park all gone wild. One building full of books, old books and manuscripts. Shakespeare and such."

It had been so long since she had heard that name: Shakespeare. The simple way he mentioned it, as if it were not unremarkable to see such a book, to read it, made the name come alive for a moment. It was all there, in her mind, but she had buried it full fathom five, the book drowned, the staff broken. Shakespeare had been no use when she had had to work sixteen hours a day in the fields just to win a bowl of thin soup, a few mouthfuls of unleav-

ened bread, from the grudging soil. Things were easier now, but the people wanted to forget the way things had been, what they had lost.

"Well," the man said, "I shouldn't go on."

Had he seen her loss in her face? Jessie told him, "I like to hear about it. The Huntington, your library would be." She remembered a long lawn between tall hedgerows, a baroque fountain splashing in sunlight.

"You were from Los Angeles? So were my parents, and so was I, but we moved to the desert when I was little, so I don't really remember it from before. I get back there at the end of each trip to find new books, make sure the doors are closed, the roof isn't leaking. Most of the houses around collapsed where they didn't burn, but some of the big buildings stick up above the trees. There aren't many people around, and those are shy as animals, so I have it to myself."

"We heard rumors that Mexico had annexed the south."

"Well, that's not true. I guess the San Diego craters still make that part of the border impassable. There are Indians, though, up around Santa Barbara."

Santa Barbara, Carmel. Big Sur. That was the way they had driven on that all-but-forgotten summer night.

The man was looking at her sharply. "If you're interested, there are a few things I can show you. . . ."

Jessie protested that she wouldn't have anything to give him, but he insisted. She stood just inside the gate, feeling awkward, while he rummaged around under the wagon's faded cover. The cat lay curled in a slice of shadow on the bench, its eyes half-closed.

"Here," the man said, jumping down before Jessie and holding out a book. "I saw the way you looked when I mentioned Shakespeare; perhaps you'd be interested."

*The Collected Plays*. A faded maroon cover, stamped with gold, that at one time had been wet, for it was warped and water-marked. She could not quite gather the nerve to touch it, so the man opened it for her, riffling the still white pages and releasing into the hot dry air the faint, unforgettable odor of old paper.

"Perhaps you have something to exchange," he said, "some little thing you haven't used for a time. Usually, if something's been lying in a drawer for more than six months you won't touch it again, and you won't miss something you don't have a use for."

" . . . I don't think so. My husband would know, but he's in town right now."



But the man sensed Jessie's wavering, her uncertainty, her temptation, as surely as an hawk senses the faintest shifting of shadows where a mouse moves through the grass, and he pounced. "It doesn't have to be very much. This is an old edition, from that place I told you about, very valuable once, but now I'll take the smallest kitchen implement for it. Why, it doesn't even have to work, because I can fix whatever's broken. I'm sure you must have something you have never gotten around to throwing out."

What held Jessie back was the certain knowledge of what R.J. would say if she gave anything in exchange for a book. Hopelessly, she said, "You liked my roses, perhaps you'll take a few stock to sell. I can wrap the roots so they'll stay alive."

"I can't think of anyone who'd want roses. But I tell you what I'll do. Wait a minute." He clambered back onto the wagon to root behind the bench, then turned with something in his hand. A small porcelain figure, a girl carrying flowers in a basket: the kind of gaudy ornament, epitome of meretricious sentimentality, she had once despised. "In exchange for a few real roses," he said.

"I'll get my scissors," Jessie said, something in her overflowing, sparkling into sunlight, the open space of happiness. It was so good to know someone still cared for beauty, for things that existed for no better reason than pleasing the eye.

Carefully, she cut off newly opening blooms, Peace, Christian Dior, Ophelia, Sutter's Gold, and bound their long stems with a scrap of cloth. She handed the gaudy bunch over, received the curiously empty weight of the figurine. It was hollow, its crude paint faded and chipped, but hers, hers.

The man climbed onto the wagon's bench and took up the reins. His mule twitched an ear, scooped the dirt with one hoof. "I'll be back next year," the man told her, "so be sure and find me something."

"I'll try," Jessie said.

He flicked the reins, whistled to the mule. The wagon creaked, lurched forward, and the cat sprang awkwardly from the bench into the shade of the cover. Jessie saw then what was wrong with it; an extra pair of legs, shrunken and useless, lolled on its hind-quarters. Touched, poor thing, like the misshapen babies buried without baptism at crossroads.

Jessie lingered at the fence until the wagon, trailing dust, disappeared around the shoulder of the knoll. High above a hawk widened its gyre in the static blue. She sighed, went into the house to set the figurine down, and returned to work in the vegetable patch. Once she went to get a drink of water and found the

tin mug gone. But she did not begrudge him that, and drank from her cupped hand.

She was still at work when R.J. returned. He walked towards her through the rows of tomatoes, a small dried up man in dusty patched jeans and a shirt so worn you could see through it. "I didn't get cloth," he said. "The price was too high."

"We'll get by, I guess."

Her husband looked at her narrowly. "You okay?"

Then Jessie couldn't keep it in any longer. She began to tell him about the wagon, the stranger, but R.J. stopped her in mid-sentence. "A man with a wagon? He didn't give you any trouble, I hope. They ran him out of town."

"Whyever would they do that? He was as polite as could be."

"For selling tainted goods, that's why. You take something from him?"

"Just a little figure. He took roses for it."

"Least we didn't lose anything in the trade. I'll bury the thing, out of harm's way."

"Why?" She suddenly felt as if she had fallen over an edge.

"Tainted. Radiation, germs. That kind of thing's bad, Jessie, scavenging in the ruins. You wait here, I'll be right back."

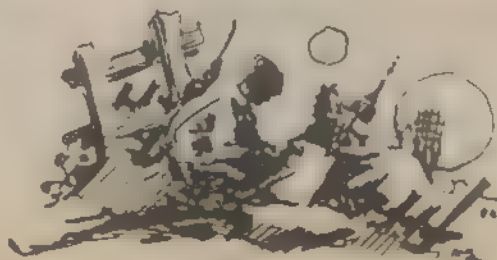
"Where are you going?"

"To see if he's off our land."

Jessie waited at the gate, and presently R.J. rode back up the slope of the dry track. Something was in his right hand, a clot of color brushing his mare's mane, and Jessie's heart turned over even before he dismounted. She knew what he carried, what the man had thrown away as soon as he decently could.

"Here, here," her husband said awkwardly. "Come on, Jessie. It's nothing. What is it?" He could only hold her while she cried. The roses had fallen to the cracked earth. "Don't cry, Jessie, it's all right. It's over. Listen, next week I'll get you that cloth, I promise. But you've got to stop."

But she couldn't stop crying, and she couldn't tell him why: not for the roses, or not exactly, but for civilization, gone like an ocean liner foundering, its lights blazing across dark water like the lights strung on the rigs of the trucks they had passed, one after the other, that lost night on the winding road between Los Angeles and San Francisco. ●







# THE POOL OF MANHEAD SONG

by Jere Cunningham

art: Val Lindahn

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The author, who recently moved from Memphis, Tennessee, to California is best known for his horror fiction. The following tale is the story of a youth's coming-of-age, in a rather peculiar time and place, under the consequences of a radiation war.

Today we know The Pool as the centerpiece of War Memorial Water Park. We love to go there, usually on balmy and lazy Sunday afternoons. Women affect older styles, wearing white NoRad in sheer materials, tailored in elegant fluffy styles. Men dress handsomely for the outings. The park itself is immaculately groomed. Its growth is rich with that cultured bloom of maturing farm colony planets, reminding us how long we have been on Althea, how far we've come since the pioneer days. And how much more we understand now than we once did.

The mid-equinox suns of Althea reflect across the mirror-like surface of The Pool. Picnics and reunions take place under genetically-widened shade trees. In polished shuttles families arrive from farms thousands of kilometers distant. On Sunday afternoon one is reminded of that lovely ancient painting from Earth Archives—the one by Seurat, called “The Bathers.” Althea’s equinox light spreads and dances in video-like pointilism over the park, dazzling across the deep, still water surface, making the banks gently rounded.

We may sit and watch our children, intrepid and beautiful in their Sunday best, throwing their magnetic *discas* or tossing protein crumbles onto the water. The motes of food float slowly out toward the center of The Pool. Toward the deeps there. And the adults, too, watch for signs of life out there, where the greatest and oldest Manheads sometimes rise.

In great motionless majesty one may ascend from the dark, as if to observe human life-ashore, or those wading in the shallows. The Manheads are gentle and secretive and are a protected species; indeed, a patriotic symbol in the Althean Logo—but it wasn’t always so.

They rise only rarely. The waders invariably hope for a chance to pet one, a chance which never comes. The great eyes of a Manhead are not often seen but I have seen such wise and tragic eyes, as the Manhead sank away from me, slipping back into the secret depths of The Pool. And few today know this, that Manheads can *sing*. You would smile tolerantly, having heard an old man such as me say such a silly thing. Yet it is no less true.

It is late on a Sunday afternoon now.

As the twin suns diverge, shadows separate like scissors opening from every person and tree. Those families who, generations ago, lost men in the Brigade War on Zed, now place symbolic offerings at the flower garden beneath the War Memorial Obelisk.

My mother is forty years older than me and still strong; we place our gift there with shared hands. We put a small cake there



with icing decoration in the shape of our farm's boundary line. I look up, out across the water of The Pool, and see the spire-shadow of the War Obelisk there on the surface in the dimming light. The shadow is split by the opposed and declining suns of Althea, like a vast V finger-salute of Victory. And I want to tell you of what this pool is . . . of why my mother fiercely grips my hand.

I want to tell now what is, what was, and how this came to be. Listen, please, to a time I remember, when The Pool was a wild place in a wilderness, seven hundred years ago, when The Pool was a place hardly known, in the backlands of a farming colony planet.

Before we knew what we all know now.

Even farmboys and katydids dream. I was eight years old, an Althean pioneer kid, a farmboy. And for me then there was no better place anywhere, just to gaze and daydream and be myself, than The Pool. It had no other name. Two kilometers west of our farm, down the irrigation line, it lay like some wilderness secret. Truth was, nobody could grow much there, or wanted to. Boundary lines wandered all around it, an ideal sanctuary for daydreaming, away from the whirr of Soilbusters or the worrisome buzz of Genetic Irradiators. It was *my* place; when my mother forbade me going there, The Pool became irresistible.

There was a sight to be witnessed there, at night, that to this day tingles in memory. You would have to sneak there in the blackest hours of dark. Only then could you see it—the planet Zed, on which the Brigade War went on and on.

Poor, uninhabited Zed, that barren stone in space, chosen as a field of combat where nations whose diplomacy had failed could fight an agreed-upon war, thus preserving their own home planets from utter doom. Althea sent men to the Brigades as routinely as we sprayed amino acids or altered plant genetics with Irradiators. And I would go to The Pool by night, to watch the war, waged by planets who could only agree to fight . . . life adapts to reality in the strangest ways. So I stared upwards, crouched on the soft grassy bank, up into the north sky-quadrant.

Zed was just a purplish dot. Then a red flash! Another, more orangeish flash! And a yellow glare, centered by a pure diamond-white dot! A hit! A ship, spilling its guts, its ion drive! Imagine the attacking waves, flying in cruiser after cruiser, into red gulfs of radiations!

That is when you might hear it . . . The Pool, ringlets shim-

mering outward from its deepest center, and the sirenlike faint wail like an electrified wire, the sound of *singing*, a terrible, woeful crying of song. Or, so a boy imagined. A song of beings who never left the water.

Then you had to look quickly to see it, and it didn't always happen—but when war flashed on Zed, sometimes a Manhead would rise to the reflecting surface. In those days there were not many; their numbers grew rapidly in the years to come. In rare flashes of diamond-white brilliance, when ion streams from Zed would light the night like colliding comets, a dozen or more Manheads might come to the surface altogether, like a chorus in some ancient tragic masque. You could not sense my fascination without being where I was and who I was. I was an innocent farmboy, witnessing cosmic events. I could hardly breathe.

If you could have seen it—when the Manheads ascended toward the shimmering war-glowing that was like a bright rain on Zed, when their smooth slick heads broke surface where Zed, like a cross of rainbows, was fixed on the black-sheeted glassiness of The Pool; if you had *heard* them!

I screamed at them once and they rotated those globular eyes to regard me and their minds screamed into mine with a dreadful comprehension that made me jump up, and run, and *run*. . . . A foolish rustic farmboy woke up the next dawn, and laughed at himself. But as I rode the Soilbuster under the twin suns I still saw those terribly comprehending wet eyes. And I knew I would never return there to dream.

As one grows, one learns that the greatest lies are those told to oneself. For before a fortnight had passed I was sneaking from the hermetic shelter, after mother had tucked me into my bed.

Still warm with the loving touch of her hands and lips, I made my way through the Althean wilderness night. To this day I could not tell you why.

And now I will tell you of my father.

He caught me that night. I know that Mother hadn't alerted him: you'll soon agree. He caught me at the verge of the light cones bordering our hundred-hectare farm. He was a pioneer, lying in wait for his son, crouched in the crushed high-nitrogen soil which was always under his fingernails. He knew more than mother. He caught me, turned me, and made me face him. That night, that moment, when I looked in fear up into his eyes, when my fear vanished instantly, I realized for the first time that I loved him.

He said nothing; his eyes said everything. He released me.



When he moved off, down the irrigation line toward The Pool, I followed, as if his back and my stomach were connected by a tractor beam. It was the natural urge of my life that followed him into the dark, toward The Pool; my heart leaped inside my ribcage like a trapped bird, in the unanalyzed fullness of our unspoken conspiracy.

God, how I loved him, when we reached The Pool. He looked out upon the still water and he looked up into the cosmos of the Althea night. Zed was there, a simply purplish dot without activity; a breeze hissed the bank rushes but no life sang, we were two, together, alone. He sat and I sat with him. Nothing told me to say nothing, I just knew.

Then, in the fragrant Althea night, Dad began . . . whispering to me. He told of the Soil-Pleasure he wanted me to feel, how the planting and the growth was a miracle despite irradiation, how the genetic urge in the seed was one with the planter's desire, how the blood was one with the soil and the water; how we were one with Althea and with the Pool. Just as the Manheads rose to Zed's war-light, we two were one with the urge of life itself, farming life, planting life, inheritors of the essential miracle of the soil and the seed, the planet and the spore, the essence of all awareness. Dad told me, that night, all that he truly believed. Our hands touched briefly.

And then Zed flashed—red, orange—*white!*

"I've been called up," Dad said. "The Brigades have called me to service next month."

I couldn't answer; in the flash of Zed came the Manheads, rising, their smooth heads breaking the reflection of Zed's agonized light. Our hands touched again and I was afraid of him. I feared anything fierce enough to go to Zed, to face what waited him there. I shrank from his hand.

There was a long terrible silence between us.

Against the suffering of fright and my boyish embarrassment, I used words, not letting his hand retake mine. "Dad?" I asked, "what are the Manheads?"

"Creatures," he said, uncertainly.

"Were they always here? I don't remember them from when I was real little, when we first came."

"Neither do I," said Dad. "They're very shy, though." Dad was nervous, and really didn't know; I could tell.

"There seems like more," I persisted. And it was true—each month or two, when Zed flared in the North star quadrant as I stealthily watched, more Manheads seemed to rise out there in

the still deep; I could count the rings of surface tension their lips made on the reflecting water. "Do they have babies? How could they grow so fast?"

"I don't . . . know," Dad said. "I only know it is forbidden to harm them or even for us to be here. The Pool is a protected place, but they don't even microwave it for intruders. I really just don't know."

And that was when we both jerked where we sat.

Something big and quietly rustling was in the dark somewhere down the reedy bank. Dad whirled, putting up a hand for silence. Then I saw it—hardly more than a thick shadow, like someone crawling, struggling down into the water and . . . gasping, then bubbling. I would have screamed but Dad clamped a rough and saline-tasting hand over my open mouth.

"Don't look," he rasped, a strange choked whisper.

Something had gone *into* the water.

He pulled me up to my feet and away, up the bank, his hand shivering. I wrenched free.

Turning to look I saw only concentric circles on the black water. Zed flared and I heard the sirenlike melodic low wail of several Manheads, and bubbles rose from the center of the Pool, catching Zed's radiation fumaroles like embers risen from a fire. Dad pulled me on toward the irrigation line to the farm.

He was going to fight on Zed and had brought me out here to this secret place because he'd needed to tell me. You would think I would have blabbered about War and Dad maybe being a Hero and you would think I would have held onto him for dear life, out of sheer pride and love. But I didn't; something in me was trying to hide.

He was a dim silhouette moving ahead of me in the night; he flicked on his quartz lamp and no longer tried to take my hand. The song of the Manheads faded.

Exactly one month later Dad was gone to Brigades.

Mother closed round me like a blanket. I'd watched Dad go in a paralysis of disbelief. We received a report of his training completion from Brigade Home Services along with a rider-chip of six farm bonus credits. Mom put them away for his return celebration.

And I should be ashamed to confess that, once Mother and I were alone together, the happiest time of my life began. I was man of the farm, protector and supporter of Mother. I didn't even want to sneak off to The Pool; and truthfully, I was afraid of that



place now. Manheads always stayed out in the deepest water, but something had been on shore in the dark, slipping away into the wetness. I didn't tell Mother about that night.

Let me tell you how our farm flourished.

Mother is a full-level Genetics Engineer, and second-level Radiological Geneticist. On a farm colony, even little Althea in out-space, experimentation never ends. No evolved form is taken for The Ultimate. Mother taught me that year to monitor evolving proteins, to stage the nucleotide sequences. I graduated from the Soilbuster. Our one hundred hectares already flourished with a rainbow horde of vegetables so luxuriant that their scents were a heavy perfume that lay on the warm nights, making a young boy drunk, a richness that Mother lay by for Dad's return.

For me this time with Mother was such luxury. I didn't wonder about Manheads. I didn't try to psychoanalyze Dad, didn't have to try desperately to become his comrade, his shadow, his understanding equal. Mother relied on me for love. A boy can't ask for more happiness.

And yet—in the dark of my mind, submerged like Manheads in their deeps—was the dreadful image of what might be happening to my father, up there, on Zed, where assault teams moved through radiation fields of red and orange and white, on that irradiated dead stone planet the Brigade Authority called the field of honor. Mom and I never talked about Zed; wondering would have been too dreadful.

War widows began to visit Mother, toward the end of that year. Most all of their husbands had returned alive from the war zone. But most had died within weeks of their return. They all had requested deep-space burial. They were all heroes with full Brigade-pensioned families, and Mother was irritated that the widows had nothing better to do than depress and frighten those whose men had gone to Brigade service. Misery loves company, she said.

As time drew longer, and the year's end came closer and closer, Mother worked the farm with energy that bordered on sheer fury. The varieties of life she produced were almost frighteningly glorious; their flavors were drawing favorable attention even from Earth-Ag Authority. But at night sometimes I'd hear her sobbing in her sleep. And as I lay in my own bed I would think I heard the soft wail of many Manheads from The Pool, and I realized that I, too, missed Dad terribly—I hated Zed.

Mother dressed in her crispest white NoRad, the one she had

married Dad in, and I'd polished the shuttle. All that night Mother kept replaying the Vid-chip that highlighted Dad's official return, one of a heroic Brigade with many decorations. We were instructed to be present at Brigade Medical Center for Dad's final check and release, with seats reserved for us during the unit citation award ceremony to follow.

Mother was up that day before either sun. She looked as radiant as any fruit she summoned from the soil. It was a warm fresh day, low white clouds slipping under our shuttle at a thousand meters altitude. The Planular farm boundaries of Althea moved under us in bands of rich crop colors, from horizon to horizon, farms of equal size, in democratic symmetry.

Driving our shuttle, Mom kept giggling to herself and biting a nail; out of nervousness or joy or both, I couldn't tell. We'd left hours too early, partly because I kept asking if we shouldn't just go. We talked about a new Soilbuster for deeper-root genetics, about subsoil, about anything except Dad. And the low grey buildings of Brigade Authority came up on our left quadrant.

Just before we descended to Brigadier Park, she took my wrist and squeezed. She looked deeply into my eyes, with a frightening intensity: "Son, whatever your Dad has seen, we won't ask. What he may look like now, we can't guess. Whatever he is now, we love him, and are glad to have back."

She let go; slipping the shuttle into the Visitor Park Zone, she scraped the magnetic bumper and set off the stall alarm. I didn't say a word. I knew not to. Mom giggled but her eyes flitted like dark birds across the rough gray walls around us. Brigade was a crude place then, not like the polished structures of today.

The medical center was sterile, fluorescent, nothing like the Vid-chip they'd sent us. It was a scarily functional place, but I could hear the fanfare of a distant ceremony. A guide led us through a security passage and I saw Dad—he had no hair, no eyebrows.

In a low-ceilinged room he waited in line behind other men. The NoRad gray he wore was decorated in the center of his chest by a tiny medal. The ceremony taking place was on Vid-chip, images moving on one wall which was a Vid-screen. Quickly one by one the men being discharged moved across the screen and accepted discharge chips from a single officer at the door. Dad came out and stood staring at us. He wore heavy NoRad gloves and held a face mask.

He was blinking, trembling as if confused. Mother shuddered and made a sighing and I thought she would cry; instead, she



rushed forward, leaving me, going to Dad. He closed his eyes when she hugged him. His face was like a bald baby.

For days we just cruised the farm in the shuttle. Dad didn't want to walk; he asked Mom to drive, which upset her. Dad had always wanted to be the driver.

He wore a prosthetic hairpiece for a day or two, then left it. Despite the heat of the converging suns he didn't remove his NoRad suit nor the gloves. He was just like a child now. I felt like a kid brother had returned, not my father. It scared me, the way Mother was babying him. To both of us, his eyes shining with tears, he told us he had been terminally irradiated. He had taken a direct ion-beam, undeflected, piercing his radiation armour and cruiser shields. He told it quite simply. The medal on his chest was for guiding the crippled ship back in. He would die within two months.

Mother looked paralyzed.

Dad began wearing the face mask.

Mother rode him in the shuttle as he wanted. Her driving was terrible but he never criticized, the way he used to. His eyes looked yellowish in the slits of the mask. I wondered if he'd lost his mind. And the truth, dear God, was that I couldn't wait for it to be over; I cried with the pain of it.

He wanted deep-space burial. He asked it with a sweet voice, like a child. In his NoRad face mask his eyes were turning golden—not a sickly hue but a shining bright metallic sheen, an unnerving clarity. I couldn't look at him. I stopped trying.

One day, during the last week, I came in from the Soilbuster. Mother wasn't inside the house. And from his room, a voice was calling my name.

It was not a voice I'd ever heard. It was like a whisper, a keening yet songlike breathing. I went to the door of his room. The window was open.

The uniform, gloves, and face mask were on the bed but I didn't see Dad. I whirled around.

*"Bury those things . . ."* said the whispering voice, *"bury them, son . . ."*

The room smelled moist and fresh, not like death at all. I turned again, searching for the source of the voice. And through the open window I saw motion out there, out near the irrigation lines, there in the shadowed growth, near the old path to The Pool.

The voice came melodic on the breeze and I smelled water on the words: *"I love you, my son . . ."*

I confess that day that I committed a crime; I deceived the authorities. Many others were doing the same.

Because we didn't know then what we know now.

Again it is Sunday. I am 700 years old and there are no wars presently on Zed. Althea is lush and lovely, with that cultured bloom of maturing colony planets. Each Sunday I bring Mother here, to War Memorial Water Park, where elegantly dressed families repose on soft grassy banks and watch The Pool.

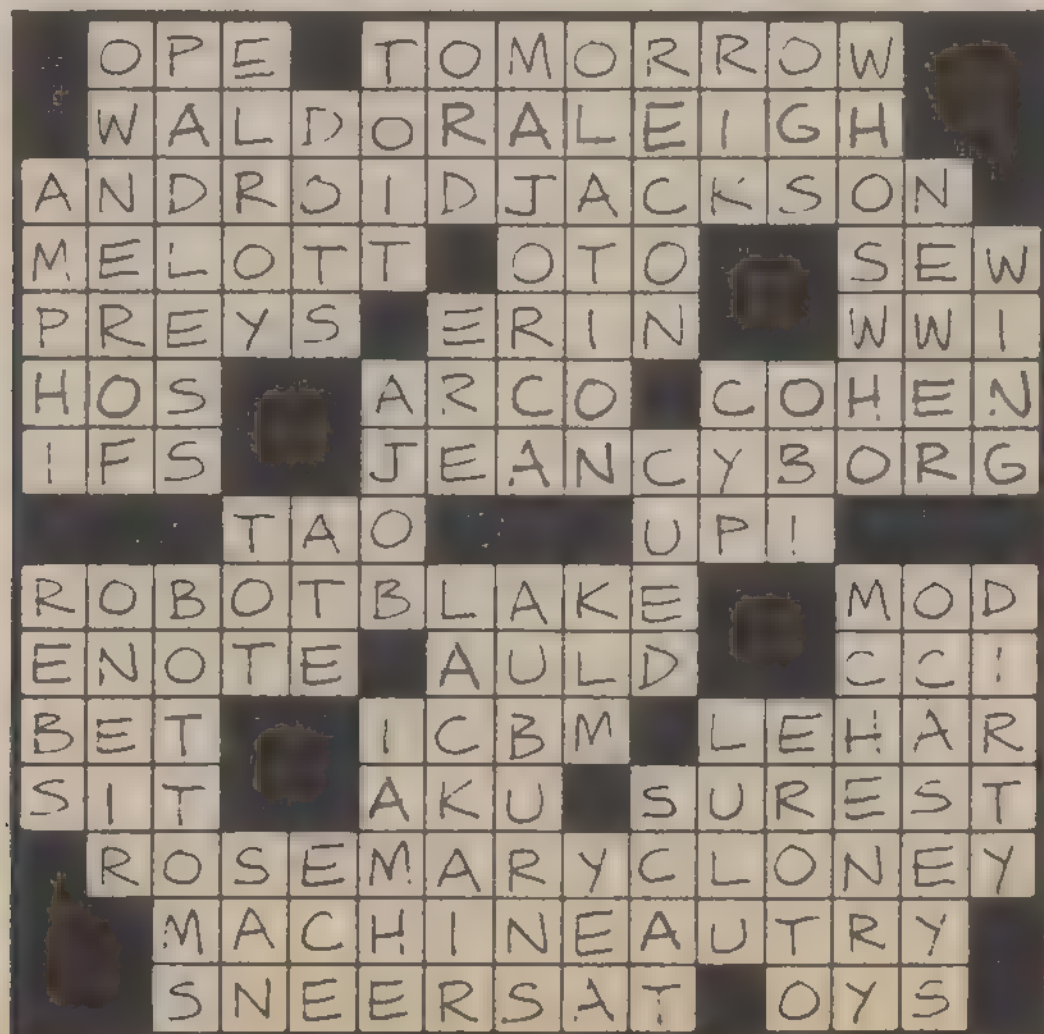
There are no more wars to make the Manheads sing. We, who long ago lost fathers and husbands, come reverently. Sometimes, very rarely, if a certain name is called with the right emotion, one might see a Manhead rise from the depths, with eyes so old and wise, eyes that have seen far too much.

War Memorial Park is a lovely place, and on Sunday afternoon one is reminded of that old painting from Earth Archives, the one by Seurat. And still, though I'm now 700 years old, I sometimes sneak down by night to this place. When the stars glide on the surface of The Pool, one can still hear the Manheads sing. ●

Asfm Puzzle #19

From page 27

## Solution to Artificial Turf



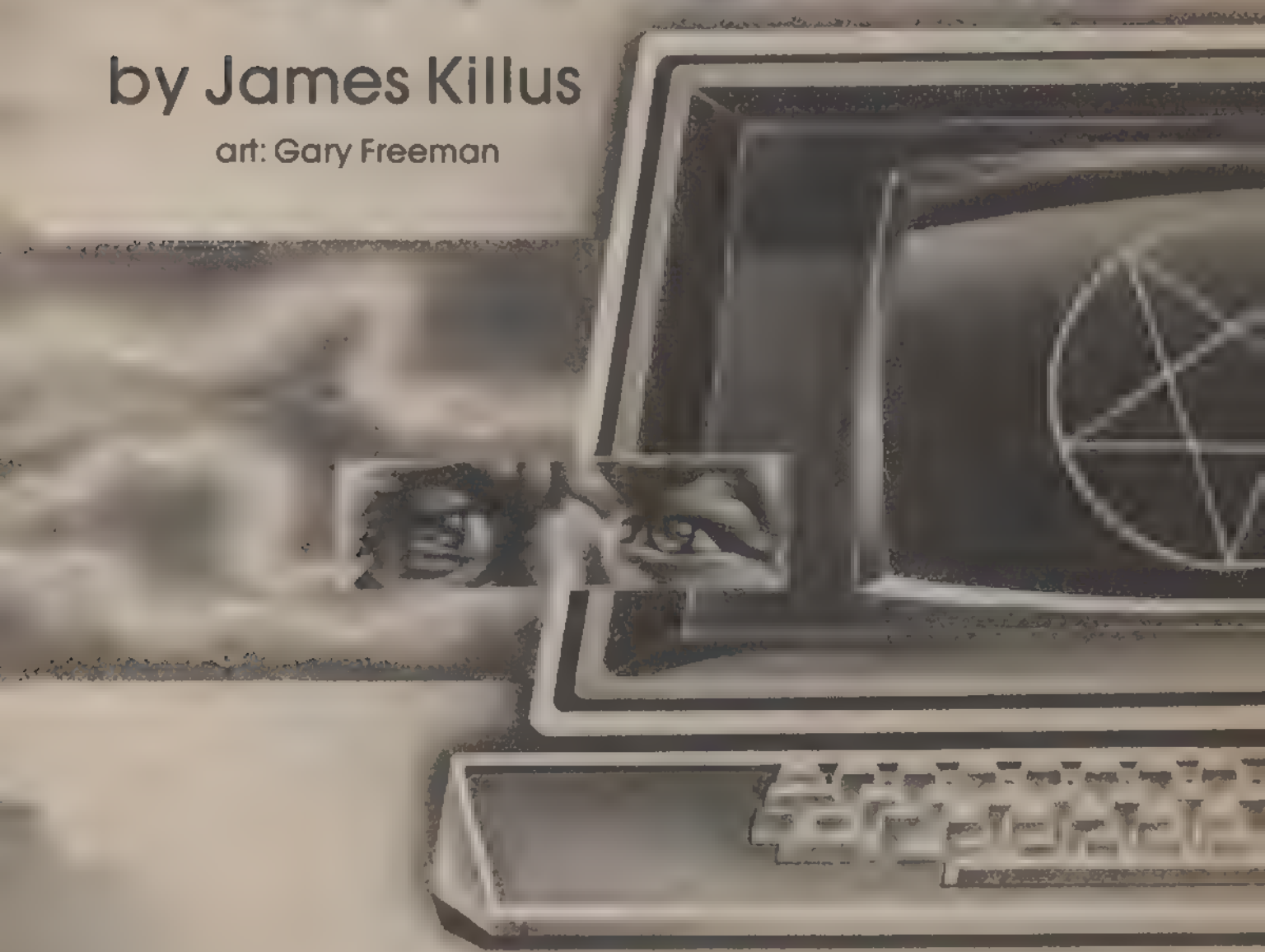




# SUN SMOKE

by James Killus

art: Gary Freeman



It's not every day that we  
get a story from the field  
of photochemical simulation modeling.

Don't expect a tale of  
pure hard science fiction,  
though, as the author's  
managed to mix his science  
with a touch of magic, too.



## PROLOGUE

The pentagram on the CRT cast phosphor-green light into the room, and made his face look sickly and gaunt. The only other illumination was provided by the scented candle which perched upon the fossil skull in the corner. The only sounds came from the rattle of the coils in the small refrigerator and the occasional hiss of the coffeepot.

Abruptly he arose, his movements jerky and agitated. He yawned and stretched, then shook himself convulsively. He stepped over to the refrigerator and opened it. It was nearly barren, but he found a candy bar in the freezer. He unwrapped it, crammed several mouthfuls down his throat, then washed it down with bitter coffee. He opened a vial of amphetamines from his pocket, took three, and washed those down with coffee also. He returned to the terminal, sat down, and began to type.

**EXECUTION TRACE: SMOGMOD IV**

**FAST FOURIER ADAPTIVE CYCLE TECHNIQUE**

**PARAMETER SEARCH: STOICHIOMETRY**

<b>RUN #</b>	<b>RESULT</b>
<b>1A</b>	<b>INVALID MASS BALANCE: CARBON</b>
<b>1B</b>	<b>INVALID MASS BALANCE: UNPAIRED OXYGEN</b>
<b>2A</b>	<b>NEGATIVE CONCENTRATION DETECTED</b>
<b>2B</b>	<b>IN EXECUTION</b>

Run 2B finished as he watched. These things were taking too long and not leading in the direction he'd hoped. He sighed. Maybe this next trick would work. He typed:

**ADDON CHECKFACT**

**RECYCLE:**

**EXECUTE**

For a moment his hands felt sticky, as if someone had spilled warm syrup on the keyboard. He looked at his hands and was briefly startled to see them covered with blood. Then he realized that the sun had arisen and that, to his CRT bleary eyes, everything seemed red in the dawning light. He hit RETURN.

The pain in his chest came suddenly, giving him no chance to cry out. He died immediately, slumping forward so that his hands pushed forward into the scarlet morning light.

The day was June 6. It was six A.M. The monster had been born.

## PART I

When Peters arrived at Shreiber Manse, Arthur and Beth had just finished taking apart the Rubik cube. Mathew was arguing that it should be possible (with the proper application of a hacksaw that he happened to have with him) to make a Soma set out of the pieces. Arthur was willing to try it, but it was Beth's cube and Beth was dubious.

"Wally!" called out Doug Shreiber, Proprietor of the Manse, as he was sometimes labeled, half in jest, half in irony. "Get your ass over here and have some drugs!"

Peters winced slightly. He did not like nicknames, especially "Wally," and he knew that Shreiber did it just to annoy him. Shreiber did a lot of things just to be annoying. But Peters did not let his annoyance keep him from padding over to the enormous sofa and accepting a toke from the giant brass waterpipe.

"Maybe just a little bit," he said in the strained voice that is used when trying to keep smoke from interfering with speech. "I'm down here on business, and besides, as you know, my interest in these things is purely scientific."

"Bullshit," said Monica, Shreiber's wife, sweeping her leg underneath Peters in a judo maneuver which deposited him next to her on the sofa. She then kissed him mightily, managing to pull the last dregs of smoke from his mouth into hers. "Yummy," she said. "Dougie filled the waterpipe with rose petals and spearmint. Dougie knows how to show his guests a good time." She grinned impishly up at Shreiber, who was trying not to show any reaction to her use of "Dougie."

"We're just about to break out the nitrous tank," said Shreiber. "Want some?" He looked at Peters.

"Yes, but I can't. Honestly. Much as I would like to join you folks in your debauchery, I really am down here on business and I have to be straight for this afternoon."

"What's up?"

"Bugs in one of our models. It's the same thing that brought me down here the last time. We've been trying for a couple of years now to do real time simulations of the Los Angeles airshed: put all the data collection on line, feed the whole thing into an adaptive model, then just sit back and watch the thing tell you what's going on in the wonderful world of smog. That's the theory, anyway. It was going great until last week. Then predictions and observations began to diverge. So they called on Mr. Wonder-



ful—that's me—to come down and bail them out. I was planning on a trip down anyway, so this works out just fine."

"How long will you be staying?" asked Monica. "Do you need a place to crash?"

"Length of stay: indeterminate. Probably a week or two. As for sleeping accommodations, I am open to suggestions. Propositions, too, but later. This afternoon is for business and I have to be up early tomorrow to get to a funeral."

"Funeral?" inquired Shreiber.

"Yeah, a colleague of mine. You don't know him. Fellow named Raymond Macgregor. He died of a heart attack last Wednesday."

"How old was he?"

"Thirty-four."

"Jeez, that's young for it," opined Monica.

"Young enough," said Shreiber. "When you have a heart attack that young you usually die from it. It's only old people who survive."

Several other people had wandered over to the waterpipe. One of them, whom Peters knew as Larry something-or-other, who drew comix, paused before taking another hit.

"Was there anything else to it? What drugs did he like, for example?" Larry asked.

"I honestly don't know," said Peters. "I didn't know him that well, actually. I met him briefly when we were both in college. I knew his wife a bit better than I knew him; I dated her for a while before she met Ray. He came on the scene the year I left; he was a transfer student from Australia. Smart. Ambitious. Hard to get to know. Martian cyborg type. The sort that won't give you a reaction until they've consulted home base."

"Let me guess," said Monica. "You didn't like him."

"You've found me out," said Peters. "But don't make too big a deal of it. I don't like a lot of people—present company excepted."

Then he kissed her again.

Peters arrived at the research office for the South Coast Air Quality Management District a little after lunch. He had made a leisurely drive out the San Bernardino Freeway before turning south toward the El Monte offices of SCAQMD (pronounced "Squaw mud" by friend and foe alike). The day was pleasant, the air surprisingly clear, the smell of late spring blooms masking any smell of smog.

"Your model is really screwing up," said Mei Lin Liu as he walked into her office.

As he sat down he tried batting his eyes at her, asking, "Why is it when it screws up it's my model and when it works, it's our model?" She laughed.

"Well," she said, "*Our* model is really screwing up. It says that today should be a stage-one advisory. Instead, it's cleaner than it has been for weeks. That's the way it's gone for about a week now. The model has been predicting light to moderate, but we've had a clearing trend."

"What do the meteorologists say?" he asked.

"I don't know, I haven't asked."

"Well, hell," said Peters. "I don't do it in the dark. My first rule of simulation modeling is, 'Never try to find an answer until you know what one looks like.' Call up your Met guys and let them know I'm coming."

Twenty minutes later he was in the office of Paul Duckworth, meteorologist for the California Air Resources Board, temporarily on loan to SCAQMD. "We've got a problem," Peters told Duckworth. "The model says smoggy but the nose, eyes, and throat say clear. To be more precise, peak ozone today should be somewhere in the vicinity of Upland, reaching a maximum concentration of about a quarter of a part per million. The monitors perversely persist in measuring ozone below the national ambient air quality standard of twelve parts per hundred million. Are there any meteorological facts which are unusual? Just what gives, huh?" For some reason, Peters was beginning to feel a bit punchy.

Duckworth's answer was no help. "No," he said. "Met factors are quite ordinary. Winds are light to moderate. Delta T through the inversion is about 2 degrees, the temperature aloft is 26° Centigrade. Everything that we know about the Los Angeles microclimate points to this being an ordinary, typical, run of the mill stage-one advisory smog day." He paused and smiled. "Hell, if you can't believe your meteorologist, who can you trust?" Peters stared at him dumbly.

"Oh, yeah," said Duckworth. "If you think today is bad, wait till tomorrow. A high-pressure cell is stabilizing. Tomorrow should be a real killer."

The next day was glorious, clean and clear. The air smelled of sea breezes and honeysuckle. "That's impossible," he thought. "You haven't been near a honeysuckle vine since you left Tennessee."

"Nice day for a funeral," he said under his breath, as he got out of his car.



His head hurt, the way it always did when he came to Los Angeles. Before, he'd blamed the smog. That excuse taken from him, he blamed the late hours of the previous night, spent poring over wind and temperature data, and measurements from chemiluminescent detectors. It wasn't his style to work after dinner, but midnight had found him still at it, frustration level growing. Only the prospect of a long drive to the cemetery in the morning had forced him to call it quits.

The funeral party was small. Macgregor had few family ties in the U.S. The group was made up of his wife, several friends, and some business associates. They made a sad little knot about the closed coffin.

"I'm glad you came," said Margaret, Macgregor's widow. "It's good to have at least one friend here."

Peters shrugged. "I don't know what to say, Meg. It all seems kind of . . ." He stopped and shrugged again.

"Useless? Pointless? A waste? I'm sure it was all of that and more. I wish I knew more about it."

He looked at her quizzically.

"We separated over six months ago. You probably didn't hear." He shook his head. She said, "I tried to write him off. Maybe I succeeded. I don't seem to feel much one way or the other. Just sort of sad. Like I wish it could have been different. I wish he could have been different."

"There was always such an air of excitement about Ray, you know? A hunger to him. It was pretty good when he was hungry for me. Not so good when it was his job or a special project, or some other woman that he was wrapped up in."

He looked at her. "I never knew about any other women."

She bit her lip. "I'm not even sure of it myself. You hear things. You suspect things. You tell lies as easily as the truth when it's an argument. But he lost interest in me, I know that much. No more challenge to it; I was a game he'd won."

He felt a strong urge to hold her, to comfort her. *Going to console the widow?* his nasty little inner voice inquired. He fought down a mixture of conflicting impulses. Something of his struggle may have shown through. She grasped his arm.

"I know that the two of us wouldn't have worked any better than it worked with Ray. I don't want to do any number on you, either. But at least if it had been the two of us it wouldn't have ended in a cemetery. Failure's bad enough without having to deal with death as well." She gave his arm one last convulsive clutch and then she turned and left.

He was still shaking his head slightly when a tall red-bearded man walked up to him. It was Geoff Tilden, the department head to whom Macgregor had reported during his employment at the California Air Pollution Research Institute.

"Got a minute?" asked Tilden. Peters nodded in reply. The two of them left the gravesite and walked along the winding road that led back to the parking lot.

"Ray was working on some pretty strange stuff when he died. Some of the staff think that he just went nuts. Some think that he might have been on to something. He was pretty excited toward the end, working long hours, chewing up computer time. Nobody's had a chance to go over his notes, not that he kept what you'd call reasonable documentation. But you've always been pretty good at figuring out what other people were after. I thought that maybe you could look over Ray's notes and papers and maybe get an inkling of what he was working on. Maybe it was just crazy bullshit, but I'd hate to think that he nearly had something and just died too soon."

"You're not worried that I'll steal it, whatever it was?"

"Hell, what can you steal from a dead man?"

When he got out to his car, his headache had subsided a bit, but his desire for work had ebbed as well. Forget it, he told himself. It's been a bum day. Chuck it and go enjoy yourself; you have some slack due you.

He got into his car and drove north toward the hills and the allure of Shreiber Manse. Blot it all out, he thought. Everybody dies someday, but you don't have to go just right now.

The sky was cloudless blue with only a hint of haze. He looked at it with professional detachment. What little haze there was should burn off soon. Normally, there would be a lot more brown to it, in layers up through the inversion. Now it looked like the aftermath of a storm, scrubbed and fresh.

A hint of a scowl crossed his face. Now there was something odd. What was it? It looked like a bit of ripple, a twinge of color just about where the base of the inversion should be. It seemed to move slightly, but he could not be sure that it was not an illusion, like the way electric power lines seem to move if you stare at them too long.

He couldn't take his eyes from the road for long. After a few minutes the illusion had passed, fading into the background of peripheral perception. To hell with it, he thought. I officially



declare this to be a hookey day. I am going to eat, and get drunk. I am going to try to get laid.

It's not like this stuff was very important.

Abrams loved flying, especially in a blimp. It seemed to him to be closer to dream-flying than any heavier-than-air craft, even a glider, could ever be. You just caught hold of a good air mass, switched off the engines, and drifted with the wind.

The SCAQMD blimp was in many ways a perfect device for monitoring air pollution. Up above the confusion of freeways and other sources of pollutants that tended to make surface monitoring a headache, one could obtain nice, smooth averages of all the atmospheric junk. And you could play tag with a particular parcel of air, watching as the concentrations increased, watching as the photochemical reactions progressed, estimating with some degree of precision just how long the parcel would stay within the Los Angeles basin.

At the moment, Abrams was carefully watching two devices, a Flame Ionization Detector (FID) which gave readings for hydrocarbons, and a "NOX Box," a chemiluminescence detector, with a catalyst, for the detection of oxides of nitrogen. Hydrocarbons and NO<sub>x</sub> suitably cooked, yielded photochemical ozone, which had been low for the entire flight so far. Abrams wanted to see if one or the other of the precursors was lacking.

"Total hydrocarbons have been running at a constant two parts per million," he said into the tape recorder. "Not appreciably above background. I've just taken a bag sample for chromatographic speciation, but my guess is that total nonmethane hydrocarbons are not above two tenths of a PPM. Nitrogen oxides are likewise very lean, near detection limits, no more than ten parts per billion. I don't know what's happening to the emissions from down below, but they certainly aren't *here*."

"I am about to raise ship a bit. I'm going to see what's up in the inversion." He notified the Air Traffic Control of his intent.

The sun was on its afternoon descent as he trickled some water out of the ballast tanks and went to negative buoyancy. The blimp began a slow rise. He kept an eye on the air temperature gauge, awaiting the telltale increase that would inform him that he was penetrating the thermal inversion. When he reached the inversion, however, he needed no measurements to inform him of the fact.

"Whew!" he said. "I've just hit something or other; the temperature must have climbed a good ten degrees. My temperature

gauge is still moving. And I'd swear that I could smell gasoline. Gasoline and auto exhaust. Wait a moment." He leaned over to an instrument gauge.

"The THC meter just pinned. Peak scale is 20 PPM, so we have one hell of a lot of hydrocarbons up here. The NO<sub>x</sub> meter is still playing dead though, oops, spoke too soon. THC just dropped to background and the NO<sub>x</sub> box just went bananas. This can't be right, there must be some malfunction, maybe the sudden heat did it. Oh, I've got a visual on something, back in a minute."

He scrabbled over to a viewport that faced west. There was something odd about the sky in the direction of the sunlight. He shaded his eyes to try to make it out. No, there were too many secondary reflections from the window. Although it was against protocol, he slipped the latches from the window and pulled the glass inside. That was better. There was some sort of ripple in the slight haze layer that he had penetrated. And a few little lumps, eddy currents maybe, moving towards him . . .

The shock hit him like a blow to the chest. He coughed, tried to inhale and suddenly his lungs were on fire, sharp spikes in his sinuses, his eyes misting over with red. He stumbled in his crouched position and the window pane splintered beneath him.

His last thought before he died was of hellfire and damnation. It couldn't be any worse than this.

It was game night in Shreiber Manse.

Peters found Monica at the poker game, where she was winning her third straight pot.

"The secret is a clear head, a calm body, and cheating," she explained. "Hi, Walter," she said to Peters. "Want to join the game?"

"I thought I'd see what Doug is up to," he said.

She pointed. "Auction monopoly is in the west bedroom."

Auction monopoly was Shreiber's most recent infatuation. Unlike regular monopoly, auction monopoly required all players to bid for property when anyone landed on it. The game therefore showed all of the characteristics of a monetary collapse. Shreiber was still tinkering with the rules however, which he maintained only increased the realism. He was wondering how to institute a Federal Reserve Board, and whether the members should be susceptible to bribery or merely to political influence.

"I hereby call a bank holiday," he said. "Everyone stretch, smoke 'em if you got 'em. Back here in fifteen minutes." He looked at Peters. "You look a little more together than you did this



afternoon. Did the nap help?" Peters had passed out on the couch earlier in the day. He hadn't known that he was that tired.

"Yeah. I feel much better. This place is great for forgetting about the real world."

"It's not like you to get this wrapped up in the job," said Shreiber. "Just what's causing all the big fuss?"

"Well, when I came down, I thought that it was just a modeling problem. Somebody input a wrong rate constant, somebody thinks that cars put out pure ethylene, something like that, only probably more subtle. But it turns out to be a bona fide mystery. It's not just our model that's not predicting the smog behavior of the past few days. It's everything. Statistical regression models agree with the photochemical dispersion models, which agree with the expert judgment of local meteorologists and air pollution control personnel. Everything that we know says that it should be smoggy, and it's not."

"So that's bad?"

"You've worked with statistical models. When a positive correlation vanishes overnight, you get worried. Something new has been added. Look, it turns out that the single greatest determinant of smog intensity is air temperature aloft. That's because it links to so many of the underlying processes. High temperatures cause greater hydrocarbon emissions from evaporation, vegetation emits more hydrocarbons and soaks up less oxidants, the photochemistry works faster and the thermal inversion becomes more intense. The temperature aloft today is high, not a record, but pretty high. But the air was clean this morning. It's enough to give you the willies."

He shrugged and scratched his beard. "Oh well, we shouldn't complain. Maybe nature has changed a few laws for our benefit. That would be nice."

The next day was ugly. The early morning fog did not burn off; the murk intensified, its hue darkening to shades of umber, yellow, and brown. A dry and acrid stench pressed down upon all who stepped outside. Indoors, nauseous little tendrils of the stuff would become noticable from time to time, reminding everyone of the filth outside and making tempers short.

"Stage-two alert has already been called," Mei Lin informed him when he walked through the door. "Word has it that stage three is only an hour or two away. There hasn't been a stage three since they made up the classification although I understand that

there were some days in the fifties that probably would have qualified."

"Probably," Peters told her. "We'll never know for sure. Calibration standards are different now. Back then they measured total oxidant rather than ozone, and wet chemical methods are fussy. For that matter some investigators were still using rubber crack depth as late as the early sixties. Now there's a reproducible methodology for you."

The SCAQMD offices took on the characteristics of a crisis center. A large chalk board was commandeered to show the status of the episode. Ozone monitors in Pomona, Fontana, and Redlands were showing spikes that went clear offscale. San Fernando valley observers reported that the San Fernando convergence zone, a minifrontal system in the wake of the Santa Monica mountains had become clearly visible, a reddish brown column of air.

Wade Smith, manager of the upper air monitoring group came in late in the afternoon. He had a stricken look about him.

"Abrams is dead," he said dully. All activity ceased and the researchers crowded around.

"What happened?" asked Mei Lin.

He shook his head. "The blimp came down in Chino, sometime this morning. It got smashed up a bit. A couple of us went down; they were just taking his body away when we got there. Maybe he died in the crash, but . . ."

"What is it?"

"His hair. His skin. They were white. His hair looked like a bad bleach job, like someone forgot to dilute the peroxide. And the look on his face . . ." He closed his eyes.

Peters walked over to the window. The sun would begin to set soon. Probably be one glorious sunset; smoggy days were known for it. A sudden chill ran down his spine.

"Too bad there's no such thing as a stage-four alert," he said.

Shreiber Manse sat far back in one of the canyons north of Hollywood. It was elevated and isolated, so that even on this night, in the midst of the worst smog episode in memory (which is to say the worst episode ever), the air seemed reasonable going down the throat. But as Peters staggered in through the door, his eyes still burned slightly from the drive back.

"You look like hell," said Monica.

"I've been there," he told her.

She poured him a stiff drink and he wandered into the Ruckus



Room. A general confab was in session; some of the people seemed to be discussing science fiction.

"I finally managed to sell a story to *High Tech*, the Magazine of Future Fiction," some woman was saying. Peters vaguely remembered having met her before. Her name was Dorothy something or other. "It's called 'Moment of Inertia' and it's a locked room mystery. The detection hinges on the fact that the angular momentum of a hollow object is greater than that of a solid one, provided both have the same mass. I also manage to introduce the concept of a love tetrahedron which involves four people, two of whom have to be bisexual . . ."

Peters finished his drink and called out to Monica to please bring him another one quickly or he'd probably . . . He didn't want to say the word *die*.

"Hey, Walter," sang out a redhead named Gloria (he never could remember anyone's last name in this place), "smog's back. Are you happy?"

"No," was all he said, but the look on his face made someone ask, "Are you all right?"

"No," he said again, hoping stupidly that they would all shut up and leave him alone.

"What's wrong, Walter?" asked Monica as she handed him his drink. He took a gulp.

"Somboddy died, that's all," he said.

"Who died?" a girl asked.

"How did it happen?" asked someone else.

"You don't know him. He was a smog researcher, a pilot."

"Hey, I heard something about that on the radio. It was a blimp that crashed. A research balloon. It said that he died in the crash."

"Well, he didn't," said Peters. "He was bleached to death." Nobody snickered. He got up and left the room. Maybe a swim would help.

He went out to the pool and stripped off his clothes. There were no lights in the pool area and the Manse was somewhat loose in its dress code in any event. He dove in. The shock of the cool water wiped away the fog of the drinks. Damn it, he thought. Now I'll have to start over.

Monica was waiting for him when he climbed out. She had brought a robe. "Take this," she said. "On clear nights it gets pretty cold up here in the hills." The night *was* clear and it was growing cold. He put on the robe and sat down on a poolside lounging chair. Monica sat on the near end of the diving board. He could see her face in the dim light from the house.

"Is it true?" she asked. "What you said about that man's dying? Is that why you're so upset?"

"I'm upset because I don't know what's happening." He shook his head. "No, wait, that's not right. In research it's common to be baffled and confused. That goes with the territory. But you always have the feeling that there are rules to things, if only you can figure them out. It's not witchcraft. It's just a pattern too complicated to figure out easily. But you know the general outlines of the problem and the general outlines of the solution.

"But what's been happening lately is impossible. There's no pattern to it except that it defies all the rules. And the pilot's death, well that just caps it.

"Damn it, nobody dies of smog! Blizzards kill people. Cars kill people, cigarettes kill people, knives and guns and bathtubs kill people, but smog is not lethal. It's ugly and annoying and it burns your eyes and gives you a headache. If you have asthma it might set off an attack; if you have allergies it might make them worse. Maybe an emphysemic with a bad heart will die during a smog alert, but that puts smog in there with all the other stresses of modern life. You can learn to live with it, if you have to; most people do.

"But Abrams' death, it scares me. It scares me way down in my gut where I can't reason with it. How can I? Reason tells me that it can't happen. His hair was bleached. How much oxidant does that take? How much ozone and peroxide? A hundred times more than anybody's ever seen? A thousand times? That's crazy. I keep telling myself that it's a mistake, Wade couldn't have seen what he saw; Abrams just died in the crash, and there's some logical reason why we're in the midst of a smog episode that came up out of nowhere and that nobody can explain. I tell myself all that and I can't get myself to believe it. I just get scared."

"I should think you'd be excited. A new phenomenon. Unraveling the mysteries of the universe. All that stuff."

"I know. I feel like a fake. The guy's real good at the easy ones, but let him get a whiff of big league pitching and he chokes. I hate myself for it.

"But I can't help it. I keep thinking that I'm like a geologist standing on the side of Mt. St. Helens just before she blows."

## PART II

He got up late the next morning and it took him a long time to get started. He had a hangover. He cursed himself for an idiot;



he had never been able to handle liquor. The drive to L.A. was nasty. All the other drivers seemed to be as irritable and belligerent as he felt. Well, how could it be otherwise? he asked himself. Just look at the sky.

The sky looked mean. The yellow and brown had visible swirls to it. In some places the color was so deep that it verged on black. It was hot, but he didn't dare roll down his window. The air was so astringent that it brought tears to the eyes and interfered with vision.

He turned on the radio.

. . . under condition of smog emergency since ten o'clock this morning, when three monitoring stations reported ozone levels in excess of 60 parts per hundred million. Sensitive individuals are urged to stay indoors. Motorists have been asked to keep all driving to an absolute minimum. Thousands are leaving the city for an early weekend; routes I 5, I 15, and 101 outbound have large traffic jams and the authorities have requested that people postpone . . .

He turned off the radio with a grimace.

The California Air Pollution Research Institute was a private not-for-profit consulting organization that had once been affiliated with a nearby university. He pulled into the CAPRI parking lot a little before noon. Geoff Tilden came down to meet him at the front desk.

"Glad you could make it, Walter," said Geoff. "It may seem kind of strange, but the place is almost deserted. We don't do much in the way of monitoring work here—most of our people are mainly theoretical—so we've not been much use during this current mess. A lot of the guys are at home, like good little citizens, obeying the requests not to drive."

Peters shrugged. "I'm staying at a place that's fairly close to here. I didn't want to travel all the way to El Monte, so this seemed like a good day to look over Ray's notes. Besides, if he had any new ideas, we could probably use them. Regular theory seems to have jumped out the window."

"I'll take you to the office."

Macgregor's office was at the end of a long, seldom used corridor. "Most of the offices are used for dead storage," said Tilden. He winced. "I didn't mean that the way it sounded. Anyway, Ray took his office down here as a temporary measure when we were short of work space. But later when I tried to move him, he refused. He said he liked the peace and quiet."

"That's strange," said Peters. "Ray didn't used to be like that."

He spent a lot of time talking to people, picking their brains." He shrugged. "Well, people do change."

Tilden indicated a door. "Here's his office." The doorknob had been removed. Peters stared at the hole. "Somehow, Ray changed the lock on his door. We found out about it when we tried to get in. He wasn't supposed to do that. We had to remove the entire lock assembly. That's when we found him dead."

"How long had he been dead?"

"Only about a day. He didn't show up for a meeting. Somebody came here to get him, found the door locked. When we tried to use a pass key, that didn't work, so we got maintenance to remove the lock. It was quite a surprise to the guy who first went in."

"I'll bet."

The office was cluttered with stacks of papers, reports, manuals, and other odds and ends all piled haphazardly on metal work tables and shelves. A computer terminal graced one of the walls. In the corner, underneath a table sat a small refrigerator.

"What the hell is that?" asked Peters. On a table in another corner were several odd objects, including an antique retort and what seemed to be a skull, used as a candle holder.

"Yeah, we thought that was pretty weird. Looks a bit like something out of a horror movie set, doesn't it? I never saw any of that stuff. My guess is that it's decoration. Like I said, Ray was getting pretty strange toward the end. I think he was developing some affectations, like some people take to wearing opera capes with little stuffed dragons on their shoulders."

The air conditioning for the entire wing had been shut down to conserve power. It was hot outside, yet there was a chill dank feeling to the air in the office. Peters shivered slightly and Tilden noticed the tremor.

"You feel it too, eh?" said Tilden. "This room seems to run about five degrees colder than the rest of the building. We're not sure why. It seems even colder than that sometimes. Pretty Gothic, I'd say." He tried a chuckle that was only slightly off the mark. "Anyway, here it all is. We haven't touched any of it, nobody has had the time. Stay here as long as you like. I'll notify the guards that you're here and that you're not to be disturbed."

Peters thanked him and Tilden left.

As he expected, Macgregor's notes were a mess. Peters set out to first try to arrange them into some sort of chronological order, a task made more difficult by the fact that Macgregor had used a private shorthand that was even more difficult to decipher than his cramped, angular handwriting.



It was late in the afternoon before he had figured out enough of the shorthand to be able to make some sense out of some of the notes. One entry in particular caught his eye. It had been written about six months before, at just about the time when, by all reports, Macgregor had begun to deteriorate. It said, *If what J says can be believed, then it might be possible to formulate a model in such a way as to make it self-validating.*

From that point on, the notes made occasional cryptic references to SVMP—self-validating model project, was Peters's surmise. But the context of the notes made it impossible to figure out what it was supposed to do or how it was supposed to work. Most of what he could figure out seemed like ravings.

Shortly after five o'clock, he went down to the end of the hall for some water and to go to the rest room. He noticed that the whole building now sounded deserted; everyone had apparently packed it in early.

When he returned, there was someone in Macgregor's office.

It was a woman; his start of surprise at seeing her made her turn around from where she stood leaning over the table with the weird paraphernalia. A momentary look of surprise crossed her face and then she spoke.

"Hello," she said. "I thought everyone had left."

Her voice suited her appearance, rich and deep and dark. Her hair was long and black, almost oriental in texture; it had a single white streak running down the left side. Her face and body were so beautiful that he was startled a second time. "What are you doing?" he blurted. "How did you get in here?"

She smiled. "The guard let me in."

"He's not supposed to do that . . ." he began, and then smiled as he tried to imagine any man saying "no" to this woman. So he asked, "What are you doing here?"

"I suspect that my aim is similar to yours. I am trying to discover what Ray Macgregor was doing before he died."

"Did you know Ray?"

"Somewhat. We were lovers for a time."

A thought occurred to him. "What's your name?"

"Joella," she replied.

"Are you the J that his notes sometimes refer to?"

"Perhaps. May I see the reference?"

He showed her. She said, "I think that this might refer to me. I do not understand any of this other though."

"Are you a scientist?" he asked.

"Not in the way that the term is properly used," she said. "I am more properly labeled a witch."

Uh oh, he thought. A southern California loon. If Ray got mixed up with her that might explain why he went off the deep end.

She saw the look on his face and shook her head. "If the term witch offends you, think of me as a practical psychologist. The titles do not matter."

She took a step forward. "What matters is this: Raymond became insane in the days before he died. We need to find out if that insanity died with him or if it lives on in some manner."

"What do you mean by that?"

"I wish that I knew." She walked over to the table where she had stood when he entered. She opened a leather-bound text that had been lying there. (Why had he not noticed that book before? It seemed quite old and its binding had a strange tooled design.)

"Raymond made some notations in the margins of this text," she said. "I cannot understand them. Some of the symbols are familiar, some are beyond my ken." She pointed to an equation.

He scowled. "Yes, I see what you mean. It looks like gibberish. The sort of thing that you see in a movie, produced by someone just stringing together a lot of symbols from a math textbook, without knowing what they mean." He pointed to a mark. "That's a laplacean, and that over there might be a diffusivity tensor. I'll be damned if I know what that one is."

She smiled. "That is an alchemical symbol for aether," she said. "I suspect that between us we know more of this than we think."

He shook his head, frowning. "So Ray was trying some kind of nonsense blend of science and witchcraft? That's pretty hard to swallow."

"I agree. I can make no sense of it. I know of no precedent for it. I do not even know what I am looking for."

"Ah," he said. "I have an advantage on you there at least. I know what I'm looking for; I'm looking for a password. Most of his work was done on the computer terminal over there. But in order to gain access to his files, I need to know the password that he was using. Here, I'll show you."

He went over to the terminal and switched it on. It emitted a little *bleep* and the cursor mark appeared in the upper left hand corner.

"Ray would have been using a computing network called EPA-NET for any environmental research. This terminal is connected directly to a small mainframe here in this building which is in turn connected by phone line to EPANET. Whenever his com-



puting requirements exceeded what was available locally, the operating system would tap into a shared pool of spare capacity available from all users of the network."

He typed: **LOGIN MACGREGOR**

The machine responded:

**MACGREGOR LOGGED IN 17:44:08**

**PASSWORD: 000000000000**

"Now I have to respond with the appropriate pass word. Let's try the project number that he was bootlegging all of this under."

He typed in the numbers. The machine responded:

**PASSWORD: 000000000000**

"See? It didn't buy it. Wrong password. I'll try again." He typed **S-V-M-P**.

**PASSWORD: 000000000000**

. . . came back yet again.

"Last try," he said. "On a hunch, how do you spell your name again?" She told him. "Let's see if Ray was a romantic." He typed **J-O-E-L-L-A**.

The machine replied:

**MACGREGOR (1) ILLEGAL UFD/PROJECT CODE**

**Sorry, unable to log you in**

**OK, LOGOUT**

**MACGREGOR (1) LOGGED OUT AT 17:45:43**

**TIME USED 0:00 0:01 0:00**

"Well, so he wasn't romantic," he said. "We could keep this up forever, but I don't think we'll get anywhere until . . ."

She yelled, "Look out!" and pushed him aside with a strength that surprised him briefly. Then all his thoughts were cut short as the CRT screen imploded, followed by the sound of smashing plastic as the outside window sagged and exploded inward.

Many years earlier, when he was a young boy playing with his first Gilbert chemistry set, he had followed the directions for the making of ammonia. Only instead of boiling the reagents on a spoon and letting it waft into his nostrils, he had collected the gas in a test tube. Unsure of the yield, he had then taken a deep breath from the mouth of the tube. The sudden shock had literally knocked the breath out of him.

This was similar, but much worse. After the first explosive cough, his throat closed, refusing to accept any more of what was given to it. He stumbled, fell, and rolled into a ball, trying to protect his bare skin from the feeling of being scalded. Through closed eyes, images came to him in shades of brown and red.

Dimly, he heard a voice, rasping but strong:

Nach dem Namen von Bach und Beethoven,  
Nach Namen von Einstein und Schrödinger,  
Nach Max Plank, Helmholtz, und Haggan-Smit  
Packed dich!

Alles unharmonisch und unordentlich formen und einflüsse  
auf einmal gehen Sie aus!

The words repeated. The pain that surrounded him diminished. Slowly, the world returned to normal. After what seemed forever, he risked drawing a breath. His throat was scratchy and it hurt to breathe. Everything stank of ozone and burnt linen.

"Peroxy acetyl nitrate," he said to himself, as if the naming of it was an incantation. He wondered if he was in shock.

"Are you all right?" she said, kneeling beside him.

"Are you?" he asked in reply. "How did you manage to say anything while *that* was going on? I couldn't even breathe."

"I felt it coming and I took a deep breath before the window broke," she told him. "Besides, its principal attack was at you."

"Why? What was it?"

"A smog demon."

He blinked and shook his head. "Run that one by me again?"

"You were attacked by a smog demon. One of the small incarnations of the larger entity that now threatens Los Angeles. I believe that it attacked you because you attempted to penetrate its nature without protection."

He tried getting up and succeeded on the second attempt, with her help. He steadied himself. He leaned against a bookshelf for support.

"Am I completely scrambled? Are you saying that that thing hit here because I just tried to log onto Ray's computer files?"

"I believe that to be a reasonable theory; a possible interpretation of events," she said.

He sagged against the bookshelf, then straightened. He looked at the wreckage of the office. "Let's get out of here," he said.

The evening sun was sinking down into the layers of brown, its light so attenuated that one could stare into it with the naked eye. With the waning light the intensity of the smog began to abate. The car radio informed them that five air quality monitoring stations in the south coast air basin had that day recorded ozone levels in excess of one part per million of air.

He shook his head. "That's the highest I've seen it outside of smog chambers." He paused. "Smog chambers are laboratory vessels for making artificial smog."



"Yes, I know," she informed him. "Raymond told me of their use."

"What else did Ray tell you? You used the name Hagaan-Smit in your little incantation. Is that the proper way to ward off smog demons?"

She grimaced. "Ray told me a number of things about smog and its history. I do not remember very much of it; I lack the education to be able to listen intelligently in so technical a field. In a moment of crisis one uses whatever comes to mind. Hagaan-Smit is perhaps a name to conjure with in smog?"

It was his turn to wince. "Yeah, you might say that. He discovered it—after a fashion. He was a Swiss perfume chemist who took a whiff of the air in Los Angeles and decided that he smelled oxygenated hydrocarbons. He also remembered that some other chemist had discovered that one could oxygenate hydrocarbons by irradiating them in the presence of nitrogen oxides. So he repeated the experiment and voilà—artificial smog. Is his being Swiss the reason why you did your chant in German? Does that make it more potent?"

She looked at him with a tired smile. She shrugged. "I don't know," she said, and for a moment he thought that he could detect the faintest lingering trace of a Bronx accent. "Have a heart," she told him. "I'm making this up as I go along, the same as everybody else."

By the time they made it to the Hollywood Hills, the sun had set and the moon risen. The horizon illusion made the moon look enormous; the thick layers of smog gave it a red and brown mottle. The face of the man in the moon looked bloody and bruised.

"What's going on?" he asked her. "I seem to be pretending to believe this smog demon stuff, maybe I'm still in shock. But I know when I'm licked. I don't know what's going on. Maybe you do. Tell me what's going on," he repeated. His voice was tired.

"I wish that I could be of more use," she said. "But I too am confronting things beyond my understanding. This is like nothing I have ever seen."

"But you spoke of magic. You say that you are a witch."

"My sign says that I am a psychic reader. It even bears the picture of a palm, though I seldom resort to cheiromancy. The pay of a psychic reader is better than that of a lay analyst, which is another name for much of what I do."

"It sounds at least as honest as contract consulting work," he said wryly.

"Thanks," she said. "Ray said something like that once. Then he told me that it was just short of an insult."

"Ray was always so tactful."

"I was not interested in his tact," she said and that hushed his voice.

"Look," she said. "I said that I was a witch and I do not lie. I cast spells, I exorcise demons. These things are possible, given the correct interpretation of 'spells' and 'demons.' At deeper levels the unconscious mind is pure magic. It can create powerful effects that are not limited to the individual psyche."

"You mean parapsychology?" he asked.

She grimaced. "No, I do not mean cardguessing and dice rolling. I have looked at those phenomena and they are nonsense. What I call magic has no overt physical effects. 'Mind over matter' is not its essence. Mind over mind is much more important. But demonic possession is a real occurrence; to explain it as schizophrenia is merely trading one label for another. I have known people who had hexes cast upon them. That the casting was not thought of as magic did not change the pain of the victim or my treatment of it.

"But this," she said, indicating the smog heavy night sky, "this is beyond my experience. It frightens me."

"But you spoke of a smog demon," he said. "You drove one away with German doggerel."

"Yes," she said. "But I do not know what I did or how I did it. I am attuned to perceive demons. I have never seen one without a person attached. Yet I felt a presence and no one was there. My methods of divination all warn me of trouble from Raymond, yet Raymond is dead and still they warn me."

"All your instruments give crazy readings," he muttered, remembering his time at SCAQMD.

"Eh?"

"I was just remembering something I read. 'Hell is where all of the instruments are perfect but none of them work,' " he said.

"I see your point. One might say that we seem to have entered a corner of hell."

"Ain't it the truth," he replied.

"That's crazy," said Shreiber. "You have cracked from the strain and you are crazy."

"I hope that you are right," Peters told him. "That would be a nice tidy explanation and I need a nice tidy explanation. So I'll tell you what. I have a terminal and modem out in the trunk of



my car. I'll get it and set it up. Then you can try to log into Macgregor's files. Only I will have to leave before you try, because I don't want to go through that again."

Shreiber looked at him intently. Peters's skin looked sunburned; there were blond streaks in his hair. His clothing looked as if it had been spattered with a cup full of chlorine bleach.

"I don't suppose that you were at the beach today," Shreiber asked him. Peters shook his head. "And this isn't a practical joke either?" Another shake.

Shreiber looked around the room. "Monica?" he asked. "Will you please turn on the television?"

Monica complied. The gathering then listened to tales of the smog emergency. One channel had gone onto fulltime news coverage. In places, the newsmen stated, smog levels exceeded measurement capabilities. Scientific authorities were baffled. Various advice and directives were given by the appropriate governmental officials. All of this was interspersed with camera shots of the night sky, where odd flashes of light could be seen.

"Chemiluminescence," said Peters. "Ozone reacts with various compounds to emit light. In certain concentrations with carbon monoxide, it can cause a blue flash."

Shreiber walked over to the television and switched it off. "Let's talk hypotheticals," he said. "How bad could this get, assuming that your insane surmises are correct?"

"How bad is deadly?" asked Peters. "How bad is 'I don't know?'"

"I don't want to believe you," said Shreiber, shaking his head. "So that means that I'd better." He looked over at Monica. "Would you please go into the cellar, look in the deepfreeze, and take out the large canister marked 'rat poison'? Inside you'll find a green can with turkish coffee in it. And set the water to boil, too. This may be a long night."

It was a long night. And Peters was not up to it. He was too tired to think. After about an hour, he could no longer respond intelligibly to questions. Shreiber sent him to bed.

Sometime near dawn he awoke disoriented and aching. It was several minutes before he could remember who he was.

"Hello," said Joella, who knelt beside the bed.

It was a small shock; he hadn't known that she was there.

"How long have you been there?" he asked.

"Not long. Only a few minutes. You cried out in your sleep."

"Was I very loud?"

"No," she replied. "Only I could hear you."

"I'm all right," he said.

"I know. I only came to be with you for a while."

"I'm flattered," he said. "But I don't . . ." His voice trailed off.

"I have been downstairs speaking of magic," she said. "To speak of magic is a very lonely thing. Discussion places a thing slightly out of reach. Sometimes that is safer than confronting it."

She got up and lay down beside him. She held him gently. A feeling of warmth and tenderness engulfed him.

"Even the whitest of magics is manipulation, the bending of persons and events to one's will. It is far too easy to become hardened from it. To begin to use others to one's own ends. To make the power an end in itself. I had progressed farther along that path than I realized. Farther than is comfortable to remember. My time with Raymond made that clear to me. We used each other, I think. And I think that in the end, he bested me at my own game.

"Magic requires power to work it. The symbols must be enfused with energy; the nature of the energy determines and is determined by the nature of the spell. Either side of the great polarities may be used. Love and hate. Pleasure and pain. Sex and death.

"Raymond's last accomplishment was to work a spell of death. A spell more powerful perhaps than anything since the age of miracles, if such a time existed."

She held him tighter. "If I wished, I could pretend that necessity dictates my actions. I could tell you that it is essential that we provide ourselves with the power that pleasure and sex may yield.

"But the truth is that I want you for myself and for no other reason. I refuse to consider other reasons. I saved your life and you seem kind and gentle, once one looks beneath your prickly skin. And I am frightened. And I must *stop talking!*"

She kissed him. And then they made love.

He awoke many hours later, with the angry red sun high in the sky. And he could not be sure that he had not dreamed the dawn.

.Douglas Aloysius Shreiber was speaking.

"Most of us are here now, so I'll bring you up to date. I've sent a few people out to get some stuff from Joella's place and whatever we can retrieve from Ray Macgregor's personal effects and papers. Some other friends of ours are coming soon. It will probably be a bit crowded here for a while. But we are pretty far out of the central L.A. basin airflow and Walter says that it's as safe here as anywhere in southern California.



"If what Walter and Joella say is true, and I do not believe they are lying or insane, then this whole area is in danger. There is literally no way of knowing how bad this smog will get unless we find some way of tapping into whatever it is that caused it.

"I hesitate to call such damnfool notions a theory, but the current fantasy about the nature of the smog episode runs like this. Macgregor was an expert in computer simulation. Now a simulation model mirrors a real phenomenon by solving equations that describe its behavior. Macgregor was trying to improve on that; he wanted to construct a model that was linked, by magic, to the phenomenon itself. It would automatically adjust itself to follow the behavior of Los Angeles smog. In the jargon of modelers, it would be self-validating.

"Macgregor's death somehow changed all that. Instead of the model mimicking the smog, the smog began to mimic the model. So what we have to do is unravel a case of computer voodoo, whatever that means.

"Actually, I am trying to ascertain what that does mean, with the help of Joella and whatever other research material she can supply. Walter is our smog expert; we are hoping to guess the nature of the phenomenon by contrasting it with scientific plausibility. Which is a snooty way of saying that we know it's impossible, but what we want to know is *how* impossible.

"We have established one thing to my satisfaction. We need to know its name. This is clear from both a practical and symbolic standpoint. You cannot control a demon unless you know its true name; we cannot gain access to Ray Macgregor's computer files until we know the password.

"Walter suggests that a failed attempt is very dangerous. This is one of the reasons why I have secured for us a second base of operations, a house in the hills north of Pasadena that is owned by a friend of mine who has evacuated. We will make any overt logon attempts from there.

"Joella insists, and I tend to agree with her, that we must treat this smog thing as if it were alive. Certainly it shows many of the characteristics of life, especially growth and irritability. Other than that I have no opinions. Believe what you will, it can kill you, so be careful.

"As for the plan of action, well, wait'll you get a look at this one. We are going to try fortune telling and meditation. I know that that sounds weird to some of you, even to those of you who are used to occult demonstrations. But we haven't much in the way of other ideas.

"So here's the deal: we've set up a shop of some sort in every room of the house. Yes, it's going to be seance night here in Shreiber Manse. Choose your scam but don't be afraid to mingle. Just remember, we're after the monster's name. If anything interesting comes up, write it down and get it to me. I'm going to try some information theory techniques on it.

"And if you believe that bullshit, stick around, it gets worse."

In the skies above the city, the monster grew.

It no longer looked like smog; the billowing clouds of noxious gases blotted the sky and turned the daylight to a dingy red. The sun was lost behind the swirls of evil haze. At night the sky lit with chemiluminescent flashes casting multiple shadows and giving headaches and waking nightmares to those who stared at them for too long.

The city itself was paralyzed. The roads were clogged with abandoned automobiles, their fanbelts, waterhoses, and tires rotted away with the oxidizing air. A state of civic emergency had been declared. All nonessential travel had been banned. The national guard swept along the arterial routes that led away from the urban sprawl, trying to clear the way for the evacuation of those least able to stand the smog. Asthmatics, emphysemics, those with heart disease, all were urged to appear at evacuation sites where they were herded into air-conditioned buses and sent out along those roads that remained open. Few people managed to reach the evac stations; most preferred to huddle indoors, trying to cope as best they could.

Stories of "killer whirlwinds" multiplied. One man told of abandoning his car to see it dissolve into corrosion before his eyes. Others told of strange crackling noises heard just before a grisly death. Small explosions had been reported; no one knew of their significance.

Arthur and Beth shared certain spiritual leanings. She had studied hatha yoga for many years (yet another hangover from the sixties was the way she described it). Arthur had come to a similar consciousness by way of zen and *bushido*, the way of the samurai. So they taught each other their favorite meditation postures and mantras, and became soul mates as well as bed mates.

And it was only natural that, when it came time to make the attempt at meditational espionage at Shreiber Manse, Arthur and Beth would set it up.

In the main music room of the mansion, Arthur hooked up a



white noise generator to drown out any exterior distractions. Next door was an anechoic chamber left over from a failed attempt at a home recording studio. Conical foam covered the walls, swallowed up all sounds. The lights were dimmed in both rooms. All actions were to the same purpose, to eliminate distractions for those who meditated.

Throughout the rest of the mansion, other techniques were being tried.

The time was early evening, when the monster napped.

"How are you doing?" asked Peters.

"I'm not sure," said Shreiber as he drained the dregs of his coffee. "There's a lot of funny stuff, and it seems to suggest something, but there's nothing really definite, yet.

"There's a lot of reference to the sun and to destruction; no big surprise there. Maybe the smog beast is a part of some sun god myth. Those are plenty powerful.

"Anyway, the tarot readings have shown the Sun crossed by the Tower three times so far. That is heap big bad news. Those all had a nice little association with the Hanged Man, once inverted, which means a bad experience, which we might not learn from. Pleasant.

"The I Ching did a nice little pirouette. Chen to Shih Ho to Li and then back again. That's Thunder to Fire by way of Biting Through. Lots of misfortune and close calls in the moving lines. Li incidentally, represents the East."

"I've been through all of Macgregor's personal library," said Peters. "There were a few weird occult texts that I gave to Joella to decipher if she could. The only other interesting things were a few books on Japanese folklore and a 'learn Japanese at home' record."

"Do you think that we could be dealing with a Japanese symbol type then? That would explain the references to the East. Also, it would make sense that the tarot would have less in it than . . . Oh Lord, I can't be saying these things, can I?"

Peters said, "Sure you can. Just keep saying to yourself, 'Nothing is more bizarre than mathematical topology.'"

"I did lousy in topology," said Shreiber.

"Well there you are, that proves . . ."

There came a yell from the second floor. The two men leaped to their feet. The yell came from the stereo room. "What happened?" asked Shreiber as he burst through the door. The electronic waterfall swallowed up his words. Arthur was holding Beth

tightly in his arms. She seemed to be struggling in a loose, disjointed way.

"I don't know," said Arthur. "Beth and I were trying candle meditation, when all of a sudden she started to hyperventilate. When I touched her she convulsed. She's getting better though."

It was true. The shaking stopped and Beth's breathing began to slow. After a few minutes some clarity slowly returned to her eyes.

"What happened?" she asked.

"I asked first," said Shreiber. "What is the last thing that you remember?"

She blinked. "Well, I was looking at the candle . . ." she began, then as her glance locked back onto the flame, her eyes glazed over and her breath became a rasping gulp.

"Look out," said Arthur, "she's doing it again." He put his hand in front of her eyes and shook her gently. Her muscles relaxed and she gave a little sob. Shreiber knelt beside her.

"Don't worry about it, Beth. Just try to relax. And dammit, Walter, blow out that candle."

Peters did so and then looked to the people who had clustered at the entrance to the room. "Go next door and tell the others to stop the attempts at meditation. It looks like it's too dangerous. Somebody get some sleeping pills. Phenobarb, if you can find it. It's used for treatment of epilepsy and I think that it might be a good thing if Beth slept for a while." Shreiber nodded his agreement.

As they were descending the stairs to the first floor, Monica met them. "We've got something, I think," she said.

"What is it?"

"The Ouija board. We were getting nothing but the usual bullshit, until Aiko sat down to it. Then it started into a long hymn to the goddess of the sun and the god of thunder. On a hunch, I got Keiko to join Aiko at the board. It spelled out 'Shura,' and 'goodbye,' and we haven't gotten another word from it since."

"What is a shura?" asked Shreiber.

"It is a type of Japanese hobgoblin. A 'vengeful spirit.' They live in the sky and do nothing but fight each other and anything else that gets in their way."

"Oh, Christ!"

"My feeling exactly."

"Well, how the hell are we going to find out the name of some Japanese vengeance demon?" asked Peters.

"I have an idea," said Shreiber.



They assembled the group.

"Through the good and brave efforts of Aiko and Keiko, two friends of ours from Monica's jujitsu classes, we have some good evidence that the smog beast is Japanese in character and thus probably has a Japanese name. How to find it is the puzzle.

"We are now going to try a variation of the 'four deep.' Four deep is a type of word game invented by Claude Shannon, the information theorist. It is used to explore the semantic structure of language. In the version that we normally use, four words from the middle of a grammatical sentence are written down and the first word is covered. The next person in the group makes up a sentence containing the three visible words and writes down the next word. The second word is then covered, and the three visible words are passed to the next person in line and so on.

"We are going to try a Japanese ideogram variation of this technique. Monica has set up several easels with blank drawing paper downstairs in a dimly lit room. The drawings can be covered with several cloth shrouds. Up here, we have every Japanese text that we can find, including several nice books of Japanese calligraphic art. So the technique is to look through the ideographs to try to get a feel for what they look like. Then go downstairs, take a brush and make a mark that best joins up to what marks are visible. This will be something like a reverse rorschach test, because afterwards, we will get Aiko and Keiko to look at the results and see if there are any legitimate Japanese characters to be found. If there are not, then we will raise the level of context, that is to say we will leave more and more of the paper uncovered in each succeeding round. Eventually we should get something out of it. With any luck, what remains will have some bearing on the matter at hand, since it will have been filtered through the sum of our unconscious minds."

The assembled gathering set to it. It was a sign of the strangeness of outside events that no one noticed how strange a task they were undertaking.

"This had better work," said Shreiber to Peters. "Meditation is too dangerous and the other things seem too general. What next? Augury? We're fresh out of chicken entrails."

The downstairs room was dim and no one thought to turn the lights higher. The tension was palpable; everyone staying at the Manse had long since passed the point of believing in the reality of the creature that they faced, though few would have been able

to state the reasons for the belief. Their faith was compounded of some combination of nightmares and the nightly news.

Monica unveiled the canvases without fanfare. All eyes turned to Aiko and Keiko, whose eyes in turn stared at the crisscrossed expanse of white.

"Well?" said Monica and Shreiber, almost in the same breath.

Aiko laughed nervously. "After the times before, it is strange to have them be so clear." Keiko nodded in agreement.

"Over there is the symbol for smoke," said Aiko. "Like smoke from a fire. And the other is sun, of course."

"Sun-smoke," muttered Peters. "That's one hell of a good name for photochemical smog. How do you say them in Japanese?"

"Sun is *taiyo*," said Keiko. "And smoke is *kamuri*. *Taiyokamuri*," she said.

A sudden chill went through the gathering then, and Peters found himself looking around to check for any windows which might crack and break. Joella put her hand upon his arm to reassure him.

Upstairs, from the depths of a drugged and dreamless sleep, Beth moaned softly and then cried out.

### PART III

They made their way to the Pasadena house through hill roads. It was Peters's opinion that the hills would be safer, higher up and recessed from the smog in the valleys below. Besides, atmospheric models do poorly in uneven terrain. The winds are tricky.

There was also the risk of running into roadblocks. All non-emergency motor traffic had been banned. Evacuation procedures had been all but abandoned; there were too many wrecked and stalled vehicles on the major roads. Smog devils harried all cleanup attempts. The monster wanted no departures.

The monster was hungry.

The explosions began shortly after dawn. A refinery complex in Long Beach was the first to go. One in Torrance quickly followed. Soon the coastline was ablaze. The fires burned slowly with enough heat to melt steel, but the flames shed no light. The smog devils huddled about them.

Feeding.

"Do you think that one of these things will work?" asked Shreiber. He tapped a metal cylinder that lay beside him on the car seat as he drove.



"I don't know," said Peters. "They should at least give you another few seconds if one of the whirlwinds attacks." He gestured at the gas mask that hung at his side. "Who knows if any of this stuff will work?"

"What's in them?" asked Shreiber, again indicating the metal fire extinguisher at his side.

"Powdered manganese dioxide, which destroys ozone catalytically. Baking soda. Phenol. Smog has a lot of acid gases in it; I'm hoping that the baking soda might disrupt those a bit. The phenol is a radical scavenger to try to upset the chemical balance that holds the devils together. It's all under pressure. I used your nitrous oxide tank to supply the propellant."

"It's nice to know that stuff is good for something."

The computer terminal had already been set up when they arrived. Its green phosphor eye glowed balefully in the living room of the hillside house. Sliding glass doors connected the living room to the patio, which offered a view of the valley below. The glass bothered Peters, but he said nothing.

"Well, it's all ready," Monica announced to no one in particular. " 'Twere best done quickly."

Peters nodded and sat down at the CRT. With sweating hands he typed:

**LOGIN MACGREGOR**

The machine replied:

**MACGREGOR LOGGED IN 14:49:34**

**PASSWORD: 000000000000**

With sweating hands, he typed T-A-I-Y-O-K-A-M-U-R-I.

**UFD TAIYOKAMURI OK**

**MACGREGOR (1) ENTRY PORT 142**

**SMOGMOD IV IN EXECUTION**

**NO SYSTEM MESSAGES**

Everyone cheered but Peters's voice cut them off. "Quiet!" he yelled. "I'm glad that we're alive too, but we haven't solved anything yet. Joella, will you please get the recorder and our notebooks? Doug, Monica? Can you set up the Apple? We may need it to try some small scale simulations or something. Everybody else just boil water or twiddle your thumbs. Somewhere else. I have a lot of work to do."

They worked through the night and into the morning. Peters obtained the execution trace of the SMOGMOD program and they began the task of interpretation. Periodically Shreiber and Joella

would scrawl symbols on the blackboard and then would argue furiously over the proper notation. Peters stared at the CRT screen until blinded by migraine headaches and eyestrain. Shreiber then took over the helm, while Peters lay on the couch with a hot towel over his face.

"Alright," said Shreiber. "Let's take stock. Where are we and what do we know?"

"We know that the smog is alive, that its soul resides in the EPANET computer network, and that the monster is very powerful," said Joella.

"Right," said Shreiber. "Now I have alerted the computer freaks of my acquaintance of a reward for anyone who can devise a program to crash the EPANET. That is part one of our attack. But that program cannot succeed without power of another sort. We need some method to attack the creature on magical grounds as well."

"What about the physical aspect of the monster?" Monica asked. "I'd think that it should be assaulted on all levels."

"Quite right," said Shreiber. "But we lack the physical means to do so."

"That's not completely true," opined Peters. "Or rather, it's not as if the beast is not at risk physically. He is fighting the ordinary workings of the weather, for example. The regular winds should blow him away. They don't because of the magic part I suppose. A pressure front is even more destabilizing. Sun-smoke has shrugged off the passage of two mild frontal systems since this all began. There's another one on the way. If we can hit him solidly on the symbolic level, the weather should take care of the rest."

"Better still," said Shreiber. "So that leaves us the magical attack. That is the toughest because no one has ever seen anything like this before. Joella has delineated the basic principles of magic as she knows it. I have attempted to quantify those principles as best as I am able. But to use the analysis is to make some very tricky assumptions. For example, we must treat the smog monster as if it were a partly complete human psyche. But we can only guess at any deeper content."

"So let us analyze its strength. What are its sources?"

"Death is first," said Joella. "Its birth was in the death of Ray Macgregor and its power lies in the force and pain of that death."

"Yes, and it also taps the unconscious symbolism of Japanese mythology," said Peters. "I'm inclined to think that it relates to



modern Japanese mythology as well. It certainly feels to me as if we're caught in a Japanese monster movie."

Shreiber nodded absently. "Yes, I believe that we can all agree that the killer program that we introduce into the EPANET should be christened 'Godzilla.'" He got up abruptly and went to the blackboard where he scribbled several sets of symbols in the notation that he and Joella had derived.

"Joella," he said. "Look here. A negative factor such as death must be overcome by a powerful positive factor, yes?"

"That is correct," she replied. "At the very center of the counterforce there must be a symbol of life, of youth, of innocence. Preferably one which is congruent to the symbol structure of the evil spell."

"Which is both American and Japanese," Shreiber stated.

"Yes."

"So how about a Japanese-American boy?"

She shrugged. "It is the best idea that I have heard."

Shreiber turned to Monica. "You are the one who is most familiar with Japanese culture. Is the boy-hero as strong an element in it as I would think from just having seen Sunday morning animations?"

Monica suddenly grinned broadly and said, "I know just the boy for you."

"Whoa," he said. "We're not definite that this is the way to go."

"Well, I am," she said. "Does it have to hit you like a ton of bricks? If anyone is right for the job, Hirotomi is,"

"Hirotomi?"

"The son of one of the members of my dojo. We call him Hero for short."

A yellow diesel station wagon slowly descended into Pasadena.

The air was breathable—just barely. It stank of dead things mixed with crude oil. The foul smells of pyridene and hydrogen sulfide assaulted the senses. Eyes burned and throats became raw even through filter masks. The vegetation alongside the road shed leaves of dead yellow and brown.

Day became night as they descended. The opacity of the cloud overhead was total. The only light came from streetlights and the chemiluminescent glowering of the monster itself. The roads were deserted.

A few television and radio stations remained on the air. The official line held that the smog was in the final stages of burning itself out. Unusual weather conditions had combined with the

freak accidents (or possible sabotage) which had caused the destruction of the Los Angeles oil storage and refining industry. Smoke from the fires was expected to persist another few days.

"Crap," snorted Monica into her gas mask. "How much longer can they keep on top of the situation before people panic?"

"You can't riot in the streets when it hurts to breathe," said Peters. He switched to another radio station. Amazingly, it was a small religious station. They listened for several minutes to apocalyptic preachings interspersed with excerpts from the Book of Revelation.

"They're not too far off base," said Peters. "In the country of the crazed, the half-mad man is king."

"What do your colleagues think?" asked Joella of Peters. "Do they have any theories about the smog?"

"I'm not sure," said Peters. "I haven't heard from anyone for several days; I think that the 'proper authorities' are keeping everything under wraps. Besides, from what I have heard, the fatality rate amongst smog researchers is abnormally high right now. You know how dangerous it is to be poking your nose into this business. Sun-smoke does not like to answer questions."

"Do you think that there could be an element of revenge to it? The monster sprang from Raymond's psyche. Did he bear a grudge against many of his fellows?"

"Your guess is as good as mine, maybe better."

Doug Shreiber announced, "Road block, people. Get out all your fancy IDs, Walter. We're going to have to do some fast talking."

Shreiber and Peters got out of the car and walked over to the police car. Peters noticed that the official vehicle had solid rubber tires. Rough on the suspension, but they wouldn't rot as fast.

A police officer met them halfway. "Twenty-four hour curfew," he said through his ill-fitting gas mask. "Emergency business only."

"This is official business," said Peters. "I'm a researcher from upstate, liaison to the Air Resources Board. I'm supposed to pick up some air quality monitors from the Pasadena station." He handed over his ARB identification badge and various government laboratory IDs. The latter had no function but to allow him access to computing facilities, but he hoped that the policeman did not know that.

The officer scrutinized them carefully, comparing picture with the man in front of him. He scowled. "You're supposed to notify the local PD if you have business in the area," he complained.



Peters shrugged. "Bureaucracy. Somebody was supposed to, I suppose."

The man hesitated. "Well, I guess it would be all right to . . ." He never completed the sentence.

Peters heard the shriek first. He whirled and dove to the ground, at the last instant turning his dive into a clumsy shoulder roll that carried him toward the station wagon. Both Shreiber and the policeman turned, startled, toward the direction of the noise.

The windows of the police car imploded with the first touch of the smog devil. The policeman inside managed to get one of the doors open before he collapsed, sliding to the ground with his feet still inside the car. As they watched, the paint on the car began to visibly peel and blister. The seals on the vehicle's fuel tank dissolved and there was an audible *whumph* as the devil sucked the gasoline into its form.

Monica and Joella both leapt from the station wagon each carrying a metal fire extinguisher. Joella handed one to Peters, then reached back into the wagon for a third. Three streams of white billows leapt toward the police car.

The smog devil shrieked again but this time the cry sounded like a creature in pain. It quit its task and rose into the air. It advanced toward the station wagon. Monica yelled something in Japanese and hurled her extinguisher at it.

The explosion deafened them. The concussion mingled with the creature's last dying shriek. One piece of metal shrapnel smashed into the roof of the police car, but otherwise the remnants of the canister found no mark.

Both Shreiber and the policeman had been driven to the ground by the blast. The policeman arose clumsily. "Harry?" he said to his fellow officer lying motionless on the ground. He stumbled toward the ruined police vehicle. He knelt beside his stricken partner and began to cry.

Harry was not dead, but he was in bad shape. They carried him and his partner to a local hospital and continued on their way. The hospital emergency room was a mob scene and they could not tarry.

Monica's fellow judo student Koichi was not home; he had been on business outside of L.A. when the roads had closed and he was now trapped outside of the city. His wife Shirley and son Hero were home, however. It required little persuasion to get them to evacuate. Shirley called Koichi to tell him of their plans and he willingly gave his approval.

They made their way back up into the hills without incident. On the way, Monica told Shirley briefly of their need for Hero's help. Her glib explanation conveyed little in the way of real information; it left the impression that they needed someone with small hands to assist in the repairs of a computer.

When they arrived back at the "forward base," Shreiber was busy typing the Godzilla program in the terminal. "Couple of guys upstate had interesting ideas," he explained. "I've combined their programs into something that may work. It's a tapeworm program. The idea is to seek out memory dedicated to the Smogmod program and to preempt it, to tie up as much of the net as possible. Some of the space involved is used for the EPANET systems routines, so there's a good chance that the whole net will crash."

Monica and Shirley adjourned to another room at Monica's insistence for some last minute "packing." Shreiber, Peters, and Joella took Hero into the room that had been prepared for the spell casting.

The walls were decorated with posters of Godzilla, in all of his cinematic glory. A song in praise of the monster, performed by Blue Öyster Cult, played on a portable stereo. The CRT sat in the middle of a pentagram, the five corners lit by sweet smelling candles. Hero's face lit up in wonder and delight. "Hey, neat!" he said.

Peters smiled at the boy. It was impossible not to. Hero was a beautiful child, with a quiet broad face that became even broader when he smiled. Peters looked into Hero's dark brown eyes and sincerely hoped that what he was about to ask for wasn't dangerous.

"Well, it appears that we don't need your help in fixing anything after all. The machine is working and the program is ready to roll. You know what a computer program does, right?"

"It's the instructions that tell a computer how to solve a problem," the boy replied.

"Good. That's exactly correct. Now the particular problem that we're working on is very difficult. It has to do with what's causing the smog that we've been having."

Hero grimaced. "Yeah, I know," said Peters. "We think it stinks too. We're trying to find ways to stop it, and this computer program is part of our research project. We've named the program Godzilla because we're going up against a smog monster."

"I saw that movie on television," said Hero.

"Did you like it?"

"It was OK. I've seen better Godzilla movies, though."



"That's alright. We're just using Godzilla as our mascot, our good luck charm. We need all the luck that we can get, because the smog monster is a tough customer." The boy nodded.

"Tell you what," said Peters, his palms beginning to sweat. "We have the program all set up. All it needs is for someone to go over to the terminal and push the key marked RETURN. Would you like to set it off? Wish Godzilla a lucky time of it? We need all the luck that we can get, like I said, and I think that it would help if a Godzilla fan such as yourself were to do the honors."

Hero looked at Peters with the look that children give adults who are behaving in a childlike fashion. *Best to humor them*, the child perhaps was thinking. *Who knows why grownups do anything?*

So Hirotomi stepped over the chalk lines and pressed the key marked RETURN.

"Go to it, Godzilla," he said. "You're the strongest one of all." The screen began to flash out the command sequence. The candles flickered and the lights dimmed as if from a power surge. The boy smiled at the special effects.

"Good luck, Godzilla," said Shreiber beneath his breath. "Give 'im hell."

In the equatorial Pacific sat a high-pressure cell, slowly meandering with the notions of the sun.

The atmosphere is a turbulent heat engine, unpredictable in practice, perhaps unpredictable in principle. The energies of its motion flow from large scale motions into small scale eddies; the reverse is also true. It has been postulated that the flutter of a butterfly's wings can change the course of a thunderstorm.

So perhaps it was a butterfly's flight that was ultimately responsible for the high-pressure cell's next action: it wobbled.

The wobble of a weather system in the Pacific has no direct connection with the weather to the north, but certain relationships between equatorial events and more northerly weathers do exist. Such relationships are known as teleconnections, but their predictive capabilities are slight. Only in the wintertime, when the atmospheric heat engine is at low throttle, do the teleconnections show up at statistically significant levels. Even then only a fraction of the variance of a season's weather can be explained. In summertime . . .

One high-pressure system wobbled just as another cell began to collapse. A low-pressure system, somewhat to the north, shrank a bit. A secondary eddy developed in an air mass farther to the

west that would eventually become a monsoon. All was random happenstance. The sum total of these events was to nudge a high-pressure region that sat much farther to the north: the Hawaiian high.

The high-pressure ridge that sits over Hawaii is a more or less permanent fixture of Pacific meteorology. Its influence often extends as far as the west coast of the United States, shielding California from low pressure storm fronts during the summer, and assuring clear skies and smoggy weather.

In response to the nudge from the scattered air masses farther south, the Hawaiian high retreated just a bit. A gap appeared in the pressure ridge covering the west coast and into this gap moved a low-pressure system.

The low-pressure system was nearing the end of its own tortured path from the lowly latitudes of the Pacific. It was warm and moist, laden with the energy of the southern sun. It lurched toward the California coast.

Upon the coast of southern California crouched an air mass quite unlike any other on the face of the Earth. It was hot and stratified and quite unwilling to be moved by any outside force. Certainly it would take more than the gentle push of a low-pressure front to move it. On two previous occasions it had turned such encounters aside.

This new low-pressure front was somewhat more energetic than the previous systems. Perhaps it had more strength of will, although such a fancy is ridiculous on the face of it. Still . . .

Instead of altering its course in any horizontal direction, the low-pressure front moved in the vertical. It began to climb.

The top of the smog system was intensely hot; drawing energy from the sunlight, the smog monster maintained an intense thermal gradient in its upper layer, effectively trapping all air below it. The low-pressure system began to draw energy from the interface. Warm and moist, the air continued to rise.

As the air rose, it cooled. As it cooled, the moisture within it began to condense. The condensation released heat that kept the density of the newly formed cloud lower than the surrounding air. The cloud rose. Another phase transition began to occur. Ice crystals began to appear. The cloud continued to rise.

A great tower of air now surged high above the city of Los Angeles. Its upper reaches penetrated the stratosphere. It was a thunderhead of enormous proportions, far more powerful than the usual stormclouds that come to California. It was a creature of



moisture and electricity. Its eyes were lightning and its breath was thunder.

Poised.

Waiting to attack.

Beth slept uneasily, but it was better than being awake. When she was awake, bright lights made her tremble and the ever-present stench of the smog seemed to cling and paw at her. Every moment seemed stifled and claustrophobic.

So she slept with the air conditioning turned up full, with Arthur watching over her for those times when she would cry out and awaken wild-eyed and confused.

While she slept, she dreamed.

In her dreams were swirling waters, and seething fog which hovered just off the California coast. From the churning waters, a form began to rise, reptilian and sentient. A creature come to carry out his appointed task.

What was his task? Godzilla turned his head as if to listen to a whispered plea. Oh, yes. Protect the children, that was his mission. Protect the children from all who would do them harm.

Astride the land there loomed a creature of mist and light. Taiyokamuri, Sun-smoke, the smog monster. An alien beast conjured from a chemical hell, a creature bent on wanton carnage and destruction, enemy to Godzilla and all that he would protect.

Godzilla snarled a scaly snarl and arose from the swirling sea. The fog clung to him like a cloak.

With a roar Godzilla hurled himself upon Taiyokamuri. At first contact the lightning flashed and thunder mingled with the belled cry of Godzilla's anger. Lizard jaws tore a gout from the side of the smog monster, but the flesh turned to mist in Godzilla's jaws and the rent repaired itself in but an instant.

The creatures grappled and lightning came again. The smog beast glowed with internal fire, misty talons raking at Godzilla's side. Godzilla bellowed yet again and smashed his foreleg into the glowing mass. Both creatures reeled. The smog beast recovered first and lashed out once again. Godzilla fell headlong into the coastal mud.

Sun-smoke leaped upon the fallen reptile. The mist condensed, compacted, became dense and stifling. The smog beast enveloped Godzilla's head, intending to pin and choke Godzilla's life away.

But Godzilla is the strongest one of all! His bellow lit his fiery breath and the gout of flame drove Sun-smoke from his hold. Godzilla picked himself up and the lightning came to him; his

form glowed with the power of it. He leapt upon his adversary. Both creatures fell amid lightning flares and quaking earth.

And there amid the rain and fire and chemical muck, the final scene began to play.

Monica adjusted her mask and stepped out onto the patio. A hot gust of wind tore at her, followed by a blast of icy mist that stung the skin as it evaporated. Shreiber turned to greet her.

"Are Shirley and Hero safe?" he asked her.

"I think so," she replied. "Donald just called to let me know that they've arrived. If that old bomb shelter isn't safe, nothing is. How about this place? Isn't this patio just a bit exposed?"

He shrugged. "Safe as houses, I guess. We wanted to see the fruits of our labors, even if it killed us."

Lightning flashed and split a tree not a hundred yards from where they stood. The quartet ducked as a rain of splinters swept around them. Peters and Joella retreated behind an upended table. Shreiber sat down upon the damp concrete, trying to maintain an air of nonchalance.

"I waive consecutive translation," he said.

Monica sat down beside him. They watched as the sky boiled.

The lightning flashes left phosphorescent rails of passage. The clouds shimmered with a thousand almost colors that hinted of sunlight and rainbows. The wind would shriek out its agony in one moment; in the next, there would be unearthly quiet. The accumulated and shifting smells in the wind had long ceased being identifiable. Another lightning bolt flashed, this time deep violet.

#### **EPANET SYSTEM MESSAGES 6/27/86**

**15:28:42 SYSG**

**PARITY ERROR ACCESS PORT 129**

**15:31:12 SYSC**

**POINTER FAULT**

**NETWORK BUSY**

**15:36:58**

**JOBNAME GDZLLA**

**ACCESS VIOLATION**

**ILLEGAL SEGMENT NUMBER**

**15:37:05 SYSA**

**PARITY CHECK PHONELINE**

**NETWORK BUSY**

**15:37:52**

**SUN SMOKE**



JOBNAME SMGMDIV

POINTER FAULT

15:39:10

USER # CX93

FATAL ERROR—CONTACT SYSTEM ADMINISTRATOR

15:40:05

JOBNAME GDZLLA

DISKFULL

SPOOL TO TAPE

RELOAD

15:40:25 SYSE

FILE TRUNCATED AND DELETED : RECOVERABLE

15:40:41

USER # MY28I MAXIMUM NUMBER OF PROCESSORS EXCEEDED

YOUR PROCESS FORCELOGGED OFF : NOT RECOVERABLE

CONTACT SYSTEM ADMINISTRATOR

15:40:53

JOBNAME SMGMDIV

DISKWRITE ERROR : RECOVERABLE

15:41:12 SYSA

ACCESS VIOLATION

NOT LOCATABLE

15:41:20

PHONELINE DOWN (213) 526-0517

PHONELINE DOWN (213) 472-4011

PHONELINE DOWN (213) 456-2153

PHONELINE DOWN (213) 835-3527

PHONELINE DOWN (213) 889-8979

PHONELINE DOWN (213) 325-9375

15:41:40 SYSE

DISKFULL

15:41:55 OPERATOR QUERY: WHAT HAPPENED IN SOUTHERN CA?

ALL AREA CODE 213 PHONELINES JUST WENT OUT

15:42:07

USER # BE42

ILLEGAL SEGMENT NUMBER

15:42:39 REPLY TO OPERATOR QUERY: NEWS SAYS SMOG, WEATHER  
FORECAST SAYS THUNDERSTORMS. MIGHT BE A QUAKE. WE ARE FIFTY  
MILES NORTH (LANCASTER)

AND WE JUST FELT A JOLT

15:43:43

JOBNAME SMGMDIV

MAXIMUM NUMBER OF PROCESSORS EXCEEDED

## **YOUR PROCESS FORCELOGGED OUT—NOT RECOVERABLE CONTACT SYSTEM ADMINISTRATOR**

**"Damn!"**

The computer operator at NCAR (National Center for Atmospheric Research) had reason to swear. Disk crashes are a messy business and he had been just about ready to do a tape backup. Too late now; hours of work had just been trashed.

The jangling telephone nearly leapt into his hand. "Hello, Jeff?" he said into the mouthpiece. "Yeah, I was just about to call you. Complete wipeout in disk drives at this end. I managed to isolate the vector pipeline machines, but we lost the EPANET lines entirely. I gotta run; I'll get back to you."

It was nearly two hours before he had the system up and stabilized. He then tried using the EPANET dial-up. There was no answer.

"That's funny," he said to himself. "Must be some problem with the phones."

### **EPANET SYSTEM MESSAGES 6/27/86**

**15:44:06 SYSA DOWN NOT RECOVERABLE**

**15:44:07 SYSB DOWN NOT RECOVERABLE**

**15:44:08 SYSC DOWN NOT RECOVERABLE**

**15:44:08 SYSD DOWN NOT RECOVERABLE**

**15:44:09 SYSE DOWN NOT RECOVERABLE**

Beth awoke to open windows and the sound of rain. Arthur was by her side. "Hi," she said weakly.

"You missed all the excitement," he told her.

"Excitement?"

He nodded. "Thunderstorm. Hail in some places. Tornado sightings. All capped off by the earthquake."

"I dreamed of an earthquake," she said.

"Well, it was no dream," Arthur told her. "Peters says that it may have helped kill the smog monster by taking out some of the telephone system and helping to crash the computer net. The rainstorm certainly helped."

"Could we go outside?" she asked.

"Sure," he said, and he picked her up and carried her out onto the balcony. The rain had turned to a fine mist.

"It's clean now," he said pointing to the rain. "It was pretty dirty at first. Almost black. But it killed the smog."



She shook her head and smiled. "It wasn't the rain," she insisted. "'Twas Godzilla killed the beast."

### EPILOGUE

For the June billing period, the California Air Pollution Research Institute received a bill for computer charges from EPANET for \$746,629.66. The comptroller for CAPRI called the EPANET billing office the next day.

The comptroller for CAPRI pointed out that the charges were supposedly incurred under the account of Raymond Macgregor in the final three weeks of June. The comptroller also pointed out that Macgregor's accounts had been terminated with the discovery of his death on June 7th and that, therefore, the bill was in error.

EPANET billing was forced to agree with this conclusion. A new bill would be prepared and an apology would be forthcoming. The unprecedented EPANET system collapse of June 27th must have been responsible for the billing malfunction. Again our apologies.

Thus was another legend added to the apocrypha of the computer age: about how a computer sent a three quarter of a million dollar computing bill to a dead man. ●



## NEXT ISSUE

In June of 1983 we ran an intriguing short story by Norman Spinrad entitled "Perchance to Dream." Readers were invited to share their own experiences and information with the author, and the response was overwhelming. In July's Viewpoint, "Perchance to Dream, Revisited," Mr. Spinrad will respond to some of these comments, and present some of his own speculations on the nature of dreams, reality and fiction writing.

We'll also have a brand-new short story, "Writing Time," by Dr. Asimov and fiction by Lucius Shepard, Kit Reed, and others. Don't miss this exciting issue. It's on sale June 5, 1984.

# ON BOOKS

by Baird Searles

## **The Wild Shore**

By Kim Stanley Robinson  
Ace Books, \$2.95

There's the holocaust story (*The Day After*), the post-holocaust story (any of the latest Survivalist novels), and the post-post-holocaust story, in which, decades after the event, anarchy has turned to some sort of order, and civilization struggles to get its act together.

Kim Stanley Robinson's *The Wild Shore* is one of these, and rather an interesting one. It takes place in the mid-21st century; the destruction of the U.S. has taken place some 60 years earlier, within the memory of the oldest inhabitants. Though information is still scant, apparently 2000 bombs were set off in the major cities and towns of the country, smuggled in on the surface rather than being delivered by missile. Retaliation did not take place, more likely through executive decision than inability, and therefore the rest of the world is more or less intact, while the U.S. is in ruins. Weather has considerably changed throughout the world, however, and the

climate has chilled on the lower California coast, the setting for the novel.

The small community of Onofre, north of San Diego, has pulled itself together enough to live from fishing, agriculture, and some trading with adjacent coastal valleys who do the same thing. Apart from the settled farmers, there are the scavengers who live in the ruins of the towns and trade artifacts; the two segments of society come together only at regularly held fairs (swap meets).

One of the distinctive things about *The Wild Shore* is that it is simply an incident in the ongoing life of Onofre; nothing earthshattering occurs, no great event suddenly promises the return of civilization. The young narrator, Henry, simply records the effect on him, his close friends, and the community as a whole when they are suddenly contacted by representatives from San Diego, which has achieved a degree of organization unknown in the immediate vicinity.

What divides the community is that the San Diegans



want—in fact, demand—help against a powerful and mysterious enemy. Ever since “the Day” (of the bombs), the U.S. has been blockaded by country or countries unknown; this is so much a fact of life that it is taken for granted. The newcomers to Onofre bring knowledge of the situation, and the question as to the wisdom of involving the community is the core of the book.

The story is told very coolly and realistically; no mutated monsters or strange powers here. The villagers of Onofre are believable, varied but very much a product of their environment. The pivotal character, aside from Henry, is Tom, an old man who insists on spreading literacy, collecting books, and teaching his own slightly askew version of history before the Day, which is alright with everyone so long as it doesn’t markedly interfere with the business of the town, which is survival.

There is *some* action, when Henry and his friends take matters into their own hands *re* a landing party of blockaders (thrill-seeking tourists from Japan, no less) and earlier, when they invade scavengers’ turf to try a little grave robbing (to their disappointment, caskets do not have solid silver handles, contrary to Tom’s tales). But the novel is more thoughtful than action-oriented, and strong

philosophical questions are raised by the decision facing the community. The San Diegans are flag-waving, “let’s remake America great” types; Tom’s faction in Onofre leans toward Tom’s comparison of 20th century America to a whale “eating up the world . . . and that’s why the world rose up and put an end to us.”

Philosophy, mercifully, does not overload *The Wild Shore*; it is really the rite-of-passage story of a period in Henry’s life when he grows up a little, and perhaps a tiny step is taken toward the recivilization of America. Its low-keyed intelligence makes it a rarity in this period of phantasmagorical SF, and it may be just what you need as an antidote.

### **A Quiet of Stone**

By Stephen Leigh

Bantam, \$2.75 (paper)

Open with hired assassins out to make a hit; it’s always socko. That’s the way Stephen Leigh’s *A Quiet of Stone* begins, and for a while the reader is as *non compos* as the victim—who *are* all these people? After several more changes of scene and even more characters are introduced, some overall sense of what’s happening begins to emerge. The scene is on (and above, in a trader’s spaceship) the planet of Neweden, and there’s all sorts of skullduggery going on. (My word processor,

which sometimes functions as an Ouija board, wrote that as dullskuggery, which in this case comes closer to the mark.)

In all fairness, it should be pointed out that Leigh has written two previous books about Neweden (*Dance of the Hag* and *Slow Fall to Dawn*); a fair amount of re-exposition is worked into this new one, but not enough to make one ever feel at home with past events or ongoing characters. This is a persistent problem with the omnipresent series form in SF, particularly so when the individual novels are presented as individual works, complete in themselves.

In any case, Neweden is a stratified society, dominated by aristocratic clans sitting on a disaffected and discontent populace. It has tenuous diplomatic ties with the Alliance, an interstellar confederation; another factor is the powerful trading families who control interstellar commerce. The focus of the novel is on the Hoorka, a guild of assassins for hire, whose workings and legality is never made very clear (see first two books, one presumes). Its founder and ex-head, Gyll, has been exiled for some years, and has taken refuge and achieved some status with a trading family; it is his return to Neweden which precipitates the events of *A Quiet of Stone*.

The Hoorkas, under their new

female leader, Mondom (who is Gyll's ex-lover) are in a poor way, dependent on the slimy but powerful Li-Gallant for their contracts. The female Regent, representative of the Alliance, wrings her hands a lot and tries to control matters, but is hampered by a symbiote creature attached to her spinal cord that keeps her alive, not to mention a handsome but immoral assistant who is out for her job.

As you can see, there's a lot going on; in one sense too much, in another not enough, since while there are periodic outbreaks of action (one or the other faction sets out to zap another every once in a while), there is an endless amount of talk. The characters explain their feelings to each other for pages at a time. Unfortunately they're not very interesting feelings; they're not very interesting characters, for that matter. About the only sympathetic one of the lot is poor Gyll, who is a dupe throughout most of the book, and is certainly much too much of a nice guy to convince one that he's set up a working assassins' guild. As for everyone else, the reader begins to wish they'd just wipe each other out and be done with it. The final inevitable shoot-out between Gyll and Mondom presumably aims at high drama, but there's the sneaking suspicion that they deserve each other.



All in all, you wouldn't want to live on Neweden, and it's not even that nice a place to visit. The author has the talents to create a complex working society, certainly, but it's made of pretty standard ingredients and badly needs some characters with character and a plot that doesn't get bogged down in talk and circuitous intrigue.

### **Realms of Fantasy**

By Malcolm Edwards and  
Robert Holdstock

Doubleday, \$17.95

There was a long period there when book illustration seemed a dying art; making a book with pictures was just too expensive, so we were reduced to looking at whatever the publisher chose to put on the front of the paperback or the jacket of the hardcover, usually covered to a greater or lesser degree with printing.

Now there's a revival of the interior illustration, in the many collector's editions being released these days. Or, alternatively, one can acquire a book devoted to illustrations of other books, as in *Realms of Fantasy* by Malcolm Edwards and Robert Holdstock. "Fantasy," in this case, covers the board from the science fictional (Burroughs's Mars and Wolfe's "Book of the New Sun") to the Gothic (Peake's Gormenghast). It seems a roundabout way to get your

favorite novels visualized, but perhaps better than not at all.

I say "perhaps" because inevitably the nine artists represented here vary in quality. The most successful in my view (and that's of course a personal one): Ian Miller's visions of Peake's endless castle, Gormenghast (the prototype of all the endless castles we've been subjected to lately, such as the one of Lord Valentine and that Autarch's Citadel); Mark Harrison's view of "The Land" from Stephen Donaldson's "Chronicles of Thomas Covenant," not one of my favorite series but handsomely pictured here; and Michael Johnson's brooding and painterly studies of Urth, from Wolfe's "Book of the New Sun" series, which has never been illustrated before, to my knowledge, save on book covers.

The text informs us about the books, usually accurately. I must quibble, though, with a caption for a picture of Burroughs's Barsoom (Mars), which seems to be rather seriously muddled about the green Martians and the red Martians. A small point, but it's gospel (to many SF readers) we're talking about.

Other illustrations cover Tolkien's Middle-Earth (another quibble—Middle-Earth is always spelled here without the necessary hyphen—tch, tch), Doyle's Lost World, Le Guin's Earthsea, Howard's Hyboria, and Moorcock's Melnibone.

## **Tales of Horror and the Supernatural**

By Arthur Machen

Pinnacle, \$6.95 (paper)

OK, OK, OK. I know that a certain segment of the readership gets very restive when we venture into supernatural areas, and we never have before in this column. But I think enough of the readers cross subgenre lines to be interested in the publication of a collection by an author immensely important to the history of fantasy in general, whose work has been very hard to find for some time, and much sought after.

That author is Arthur Machen (the only specific reference I have to pronunciation is de Camp's biography of Lovecraft, which says it rhymes with "blacken"), and the collection is *Tales of Horror and the Supernatural*, a feast of his stories, many of which are long enough to qualify as novelettes. Most were written about the turn of the century; Machen grew up in the hills of Wales and the best of the stories evoke the brooding strangeness of the Celtic-Roman heritage of the desolate landscape there, as in "The Great God Pan." No jolly satyr here; it is Pan as in "panic" that haunts and corrupts a contemporary Welsh girl, and one can see why the Christian depiction of Satan owes much to that fearsome god.

This is the dark side of the

British mythological heritage, as Tolkien is the bright. Machen's tales are not ghost stories in the classic sense, but fantasy meant to terrify—"supernatural" in the broadest definition. If you're tired of overlong, contemporary horror novels that try to scare you with nastiness rather than craft, try Machen.

## **Three Hearts and Three Lions**

By Poul Anderson

Ace, \$2.50 (paper)

## **A Midsummer Tempest**

By Poul Anderson

Tor, \$2.95 (paper)

We are awash in a sea of fantasy these days, up to here in dragons. The amount of hack fantasy now being published is beginning to outdo the amount of hack SF; therefore it's a pleasure to see back in print two fantasies from the days when "high" fantasy was fresh and original, and what's more, that have kept that freshness. Readers viewing the great amount of Poul Anderson's science fiction recently back in print might be forgiven for regarding him as confined to that area, but his rare fantasies are jewels of the genre, certainly among the best that an American has produced. Why they are relatively unknown in this heyday of the fantasy novel is a minor mystery. (One possible answer—could it be because they are relatively short, rather



than the elephantine multi-volume monsters currently so popular?)

*Three Hearts and Three Lions* was first published in 1961—a shorter magazine version dates back to 1953. (Ah, those were the days—my hardcover edition cost \$2.95.) It tells of Holger Carlsen, a 20th-century Dane in the Danish underground of WWII. During a fracas with the Nazis, he is thrown into another, alternate universe, which turns out to be that of the Carolingian sagas—fairyland and Saracens, swan-mays and unicorns, witchcraft and elf hills. What's more, he seems to be somebody rather important, but he only has vague flashes of who it might be. However, there's a Saracen looking for him, and the forces of Faerie are aligned against him, as he wanders the Middle World between Faerie and the realms of men, which more or less coincide with our Medieval Europe.

He teams up with a dwarf and a swan-may (a rustic young lady who can turn herself into a swan at will, thanks to a magic garment), and goes off in search of his identity, consulting magicians and witches, and confronting trolls, demons, a stray dragon, a seductive water sprite, Duke Alfric of Elfland and his forces, and eventually Morgan Le Fay. There's also a neat little mystery in a central

chapter where he has to figure out deductively which of a feudal household is a werewolf. All of this may seem old hat at this point, but Anderson's knowledge of Northern European mythology, his story-telling ability, and his sly but unforced use of anachronistic humor makes three hearts trump most of the swords, diamonds, dragons, kings, and other such stuff being put out today.

*A Midsummer Tempest* was published nearly a decade later, and is darker and more oblique. It begins with a skirmish of Cavaliers and Roundheads in the English Civil War, and might well be a historical novel until the appearance of a steam locomotive jars our sensibilities. This, too, is an alternate universe, one in which Shakespeare is a historian rather than a dramatist; the hero is the Cavalier Prince Rupert who, fleeing from Cromwell's forces, is aided by Oberon and Titania. He is sent on a quest to Prospero's island, to perhaps find something to help the elves fight the creeping industrialism introduced by the Puritans (not to mention the Protestant work ethic), and meets an aging Caliban and an ageless Ariel.

Perhaps the most intriguing scene takes place in the Old Phoenix, an inn between the universes, where Rupert encounters Holger, the hero of *Three Hearts*, still trying to find

his way back to his own universe.

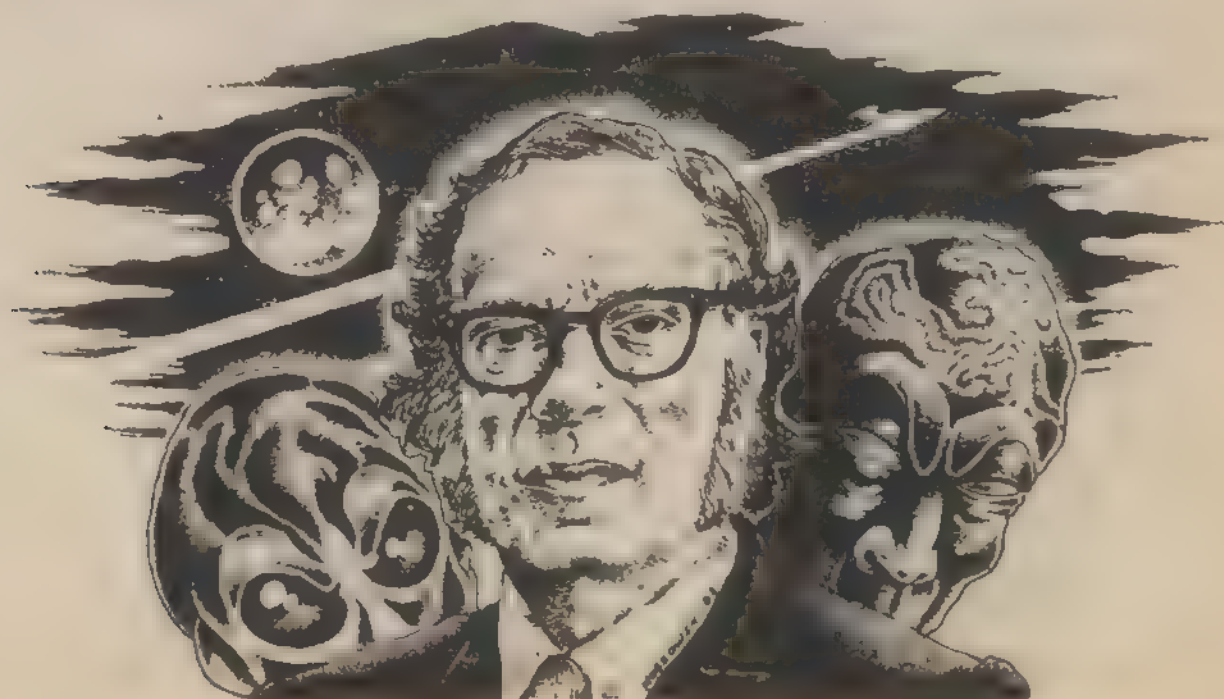
These two novels, as well as *The Broken Sword* and *The Merman's Children* (both of which chronicle tragic encounters between the world of Faerie and humanity in our own history) certainly guarantee Poul Anderson a position among the first-rank fantasists.

*Shoptalk* . . . A sequel to Alan Dean Foster's popular *Spell-singer* has been published. Its title—*Spellsinger II: The Hour of the Gate* (Warner, \$2.95) . . . Our Antipodean friends Down Under continue to publish books (before we know it, they'll be making movies and who knows what-all) and forward them for consideration. While reviewing anything quite so far-fetched (in the absolutely literal sense of the words) is a little tricky, they're interesting productions and we can but mention them. On hand are

*Savage Tomorrow* by Trevor Donahue, *The Tempting of the Witch King* by Russell Blackford, *Thor's Hammer* by Wynne Whiteford, and *Frontier Worlds* edited by Paul Collins. All published by Cory & Collins, information can be obtained from same at PO Box 66, St Kilda, Vic. 3182, Australia. If they're anywhere near as good as some of the Australian films seen in the past few years, they're worth checking out.

Recently published by those associated with this periodical: *Space of Her Own* edited by Shawna McCarthy, Doubleday, \$12.95; *Isaac Asimov's Wonderful Worlds of Science Fiction #1: Intergalactic Empires*, NAL, \$2.95 (paper).

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# SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

Exams will soon be over, and there are lots of con(vention)s coming up. Make plans now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For a longer, later list, an explanation of cons, and a sample of SF folksongs, send me an SASE (addressed, stamped #10 (long) envelope) at 9850 Fairfax Sq. #232. Fairfax VA 22031. (703) 273-6111 is the hot line. If a machine answers, leave your area code and number. I'll call back on my nickel. When calling cons, give your name & reason for calling first off. Send a #10 SASE when writing. Look for me behind the Filthy Pierre badge at cons.

## MAY, 1984

11-13—**TexarKon**. For info, write: 1021 E. 29th, Texarkana AR 75502. Or phone: (703) 273-6111 (10 am to 10 pm only, not collect). Con will be held in: Texarkana AR (if city omitted, same as in address) at the Tall Timbers Resort. Guests will include: T. Sturgeon, R. Asprin, artist P. Foglio.

18-20—**MarCon**. Quality Inn Sinclair Rd., Columbus OH. C. J. ("Downbelow") Cherryh, artist Todd Hamilton. Masquerade & banquet. This is one of the classic Midwestern cons. Low-key and convivial.

18-21—**KeyCon**, Box 165, Westwin P.O., Winnipeg, Manitoba R2R 0Y0, Robert (Mythconceptions) Asprin, Phil Foglio. Somewhat comic-book oriented, but there isn't much choice of cons out there.

25-28—**TyneCon**, c/o Williams, 19 Jesmond Dene Rd., Newcastle NE 2 3QY, United Kingdom.

27-29—**VCon**, Box 48478, Bentall Centre, Vancouver BC V7X 1A6, Samuel R. Delany, Elizabeth Lynn, fan Debbie Notkin. Masquerade, write-like-Delany contest, SF poetry workshop. At Gage Towers, UBC.

## JUNE, 1984

8-10—**XCon**, Box 7, Milwaukee WI 53201. Oconomowoc WI. At the Olympia Resort & Spa.

21-24—**DeepSouthCon**, c/o Koch, 835 Chattanooga Bank Bldg., Chattanooga TN 37402. (404) 767-7360. J. Vinge, K. E. Wagner, T. Sturgeon, S. Sucharitkul, T. Sullivan, M. Bishop, A. J. Offutt (John Cleve) Fan J. Page. Many more authors, artists, editors at this, the big annual Southern con.

29-July 2—**Inconjunction**, Box 24403, Indianapolis IN 46224. Joe Haldeman, W. A. (Bob) Tucker.

29-July 3—**WesterCon**, Box 16155, Portland OR 97216. (503) 761-8768. Harlan Ellison, artist Alex Schomburg, Ed Bryant, fans F. M. & E. Busby. Masquerade. This is the big annual Western con.

## AUGUST, 1984

30-Sep. 3—**LACon 2**, Box 8442, Van Nuys CA 91409. Anaheim CA. WorldCon '84. Join now for \$50.

## AUGUST, 1985

22-26—**AussieCon 2**, Box 428, Latham NY 12110 USA. Melbourne, Australia. The WorldCon for 1985.

30-Sep. 2—**Lone Star Con**, Box 9612, Austin TX 78766. The North American SF Interim Con for 1985 (NASFIC's are held only in years when WorldCon is outside North America). 3000 fans are expected.



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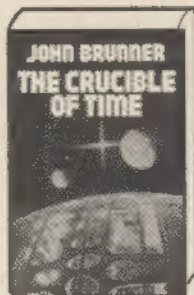
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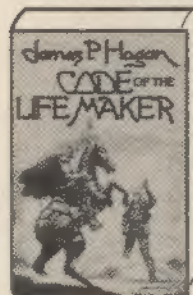
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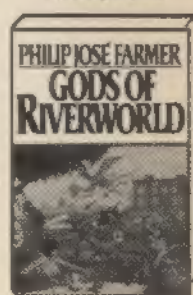
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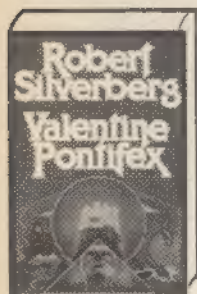
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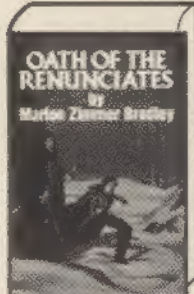
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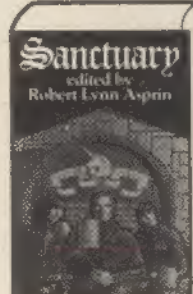
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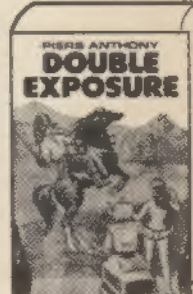
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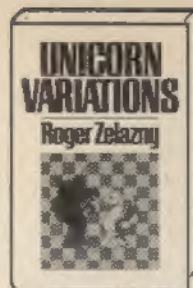
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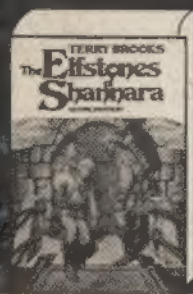
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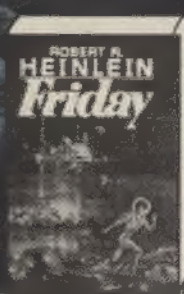


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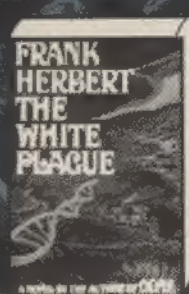
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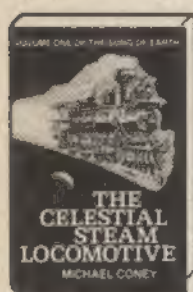
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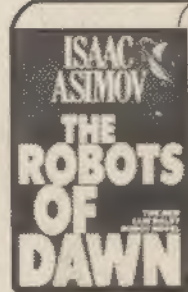
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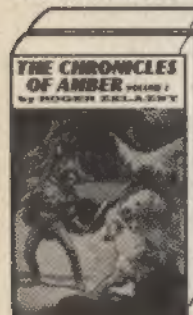
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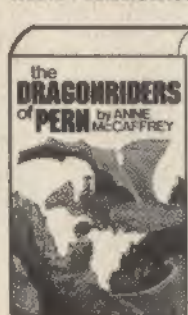
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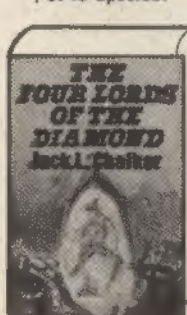
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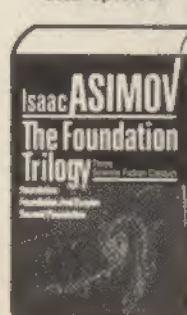
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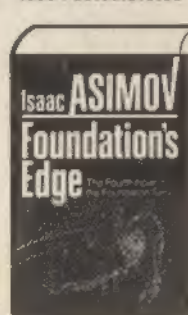
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